sartorius

Lab Products & Services
US Selection Guide 2015

turning science into solutions

Sartorius Laboratory Products & Services

US Selection Guide 2015

Since 1870

Sartorius Laboratory Products and Services is a global provider offering integrated solutions for your everyday lab applications. An industry leader for over 140 years, we pride ourselves with our innovative expertise, diverse product portfolio, and excellent customer and product services.

Strongly rooted in the scientific community and closely allied with customers and technology partners, we provide laboratory weighing, filtration, purification, cell culture, microbiology, lab water, liquid handling, electrochemistry, and moisture products. Sartorius is dedicated to its philosophy of "turning science into solutions."

The purpose of this selection guide is to showcase features, benefits and specifications of our Lab products and services in an easy to follow format. Basic tables and simple graphic icons will allow you to find the right product for your application work-flows.

1870
Founding year of Sartorius
The "university mechanician" Florenz Sartorius founded a precision mechanical workshop, "Feinmechanische Werkstatt F. Sartorius."

1888
First short–beam analytical balance built
Florenz Sartorius unveiled a short beam analytical balance that stabilized much faster than the conventional balances available.

1927
A Sartorius membrane filter company was started with Nobel Prize winner Zsigmondy
The company's primary objective was research development and manufacturing novel membranes.

1940
Manufacture of the first filter devices
The first filter devices manufactured by Sartorius facilitated breakthroughs in sterile filtration and microbiological testing of liquid media and gases.

1945
Key player in providing clean drinking water during World War II
During and after World War II, people were exposed to considerable risk of contracting diseases. Sartorius helped alleviate the situation by providing filters for testing drinking water. These were the beginnings of bacteriological analysis, one of Sartorius's core areas of expertise.

1960
Sartorius develops a range of hemofiltration products for people with kidney failure
Sartorius worked closely with leading specialist clinics and hospitals to develop hemofiltration products for patients with renal insufficiency. Its crossflow filter units were used to reliably filter out toxins from the human body.

1962
Guinness Book of World Records
Sartorius manufactured a vacuum ultra-microbalance called "Gastnanogram." For many decades, it was listed in the Guinness Book of World Records as the "most accurate balance in the world.".

1969
Sartorius is involved in the Apollo 11 mission
Sartorius caused a worldwide stir by weighing the first moon rocks brought back by Neil Armstrong on the Apollo 11 mission.

1970
First subsidiaries founded worldwide
At the beginning of the 1970s, Sartorius began to establish its own subsidiaries abroad.

1971 – The first subsidiary was founded in Austria, then more companies were established.

1975 - The U.S. subsidiary was incorporated, which started in a hotel room in San Francisco, California.

c. 1980
The first manufacturer of pleated membrane filter cartridges
Sartorius was the first manufacturer to create membrane filter cartridges using pleated material well known in air filter technology. This space-saving design is still the basis for today's innovations in pleated membrane filtration equipment.

2009
The first fully modular–design laboratory balance
Sartorius developed the world's first modular and menu-configurable series of laboratory balances. As a result, they give users customized instruments to make their everyday workflows much easier and more accurate.

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Tech Support
Phone: 800-635-2906 xt. 8215
Fax: 631-254-4252

Service
Phone: 800-635-2906 xt. 8733

Cubis® Premium Laboratory Balances

High Performance Weighing

Cubis® Premium Laboratory Balances offer a never before seen freedom of choice, as it's the first and only laboratory balance featuring a modular design to configure display|control units, weighing modules, draft shields and interfaces, as well as be adapted to the changing requirements of different applications. It's for users who expect the best possible performance from a laboratory balance, but who only want to invest in what is necessary.
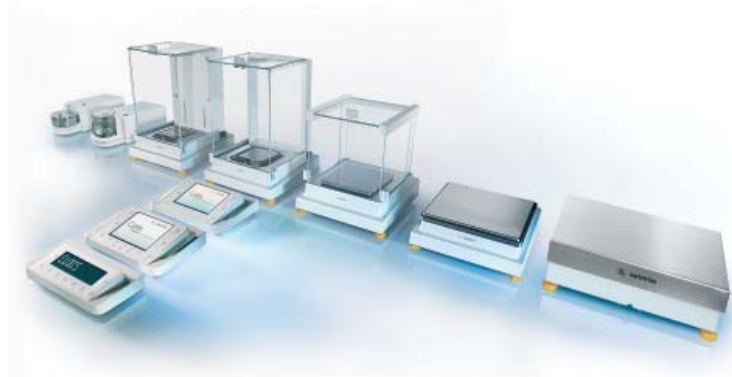
Benefits

Only pay for what you need... modular balance design allows you to choose from different options to configure your balance to suit your individual needs and obtain the most optimal solution for integration into your weighing process.

Broad portfolio ranging from ultra-micro to high capacity balances with high-precision weighing performance for fast and accurate results.

Safe & easy to use with Q-Guide... specific tasks can be easily defined through the interactive operator guidance to program settings and hide information that isn't relevant.

With Q-Level, weigh with ease knowing your balance will always be level... Cubis® is the only laboratory balance that automatically checks, performs and documents its exact leveling[1].

Cubis® individual... a more effective way to increase process efficiency and promote fail-safe reliability in the weighing process by implementing Q-Apps directly in the Cubis®.

Fast and straight-forward communication with Q-Com... three fixed (USB, RS-232C, Ethernet[2]) and three optional interfaces make almost all forms of bi-directional communication possible.

Cubis® is well-protected against fluid spillage and has an easily removable, high-grade stainless steel weigh pan & shield plate. In seconds, the balance can be ready again for measurements.

With the integrated Q-Stat ionizer[3] and conductive coating on the glass panels, electrostatic charges on vessels and samples are quickly eliminated for stable, more accurate results.

A wide selection of accessories can adapt to various vessel types for ergonomic operation and can also function in harsh workplace conditions for safer, more efficient weighing.

Applications

Types	MSA	MSU	MSE
Applications	Unit conversion, SQmin for monitoring the operating range according to USP Ch. 41, isoCAL automatic calibration|adjustment function, individual identifiers, density determination, statistics, calculations, averaging, formulation, weighing in percent, time-controlled functions, totalizing, DKD measurement uncertainty, second tare memory, counting, checkweighing, Alibi memory, audit trail	Unit conversion, SQmin for monitoring the operating range according to USP Ch. 41, isoCAL automatic calibration|adjustment function, individual identifiers, density determination, statistics, calculations, averaging, formulation, weighing in percent, time-controlled functions, totalizing, DKD measurement uncertainty, second tare memory, counting, checkweighing, Alibi memory, audit trail	Mass unit conversion, isoCAL automatic calibration|adjustment function, density determination (buoyancy method only), calculations, averaging, net|total formulation, weighing in percent, counting, totalizing
Personalizable with Q-Apps	– Downloadable Q-Apps – Customer-specific modifications on request	–	–

[1] For models that do not feature automatic motorized leveling (weighing capacity > 6.2 kg or readability ≤ 0.001 mg), leveling is done manually with real-time, interactive operator guidance

[2] MSA and MSU displays only

[3] DI draft shield only

Cubis® MSA   Cubis® MSU   Cubis® MSE

Features

	Cubis® MSA	Cubis® MSU	Cubis® MSE
**Tamper Protection	Compliance Support**			
Hierarchical password protection	•	•	
Integrated alibi memory	•	•	
User management	•	•	
Calibration storage	•	•	
Audit trail	•	•	
Action hierarchies for warning and intervention functions	•	•	
Inspection Equipment Monitoring			
Self-test			
Leveling control	•	•	•
Automatic motorized leveling, Q-Level	•	•	•
Automatic time- and temperature-dependent calibration, isoCAL	•	•	•
Monitoring of the operating range according to USP Ch. 41, SQmin	•	•	
Automatic reproducibility test, reproTest	•	•	
**Support	Guidance**			
Monitoring pre-selectable calibration routines in UserCal (with Q-App)	•		
Determination of measurement uncertainty in accordance with USP Ch. 41 (with USP Q-App)	•		
Displaying measurement uncertainty, SURE	•	•	
**Data Handling	Data Integration	Process Integration**			
**Applications	Workflows**			
Downloadable apps (application software)	•		
Integration of individual SOPs (workflows)	•		
Direct LIMS integration	•		
Advanced communication via web services	•		
Interfaces			
Serial	•	•	•
Network-compatible	•	•	
**Operational Support	Ease of Use	Ergonomics**			
Integrated electrostatic eliminator, Q-Stat (DI draft shield)	•	•	•
Variable vessel holder, Q-Grip (0.01mg/0.1mg readability only)	•	•	•
Weighing pan for laboratory hood or laminar flow bench, Q-Grid	•	•	•
IR sensor, foot switch, barcode reader (optional accessories)	•	•	•
Programmable automatic draft shield doors	•	•	•

Cubis® individual
Increase Efficiency & Reliability in your Weighing Process

Customize a Cubis® MSA laboratory balance at any time by downloading specific applications, called Q-Apps, directly into the balance. Once installed, Q-Apps guide users step-by-step through a specific weighing workflow, ensuring thorough compliance with written SOP's. Integrating SOPs directly into the Cubis® adapts the balance to a process and not the other way around, and is considered embedded software on which fewer validation requirements are needed, as compared with external software, or middleware. Cubis® individual tremendously increases efficiency and reliability in the weighing process, thus saving valuable time and money in laboratories.

Two Q-App Versions are Available:

– **Standard Q-Apps** can be downloaded directly from our website free of charge to trial for 30 days. After the trial period has elapsed, simply purchase the Q-App for a license to allow it to work permanently

– **Customized Q-Apps** can be individually configured for a more individualized solution to adapt any specific weighing process to the balance and SOP

Features & Benefits
Improve Sample Management
For better organizing and control of weighing samples.

Effective Data Management
Alleviates the need for manual data handling, which can automate the documentation process and also increase the reliability of results.

Efficient Communication
In addition to printers, direct connectivity to LIMS via web services and direct read & write from|to FTP servers are also possible. With Q-App Advanced versions, result evaluation via HTML (browser) is also possible.

No Laptops, PCs or Terminals Required – Cubis® MSA is the Only Interface Needed
An alternative to implementing or validating external middleware.

Visit our Apps Center for a list of standard Q-Apps to download

Q-Apps – Specifications & Pricing

Model	Description	Application	US List Price ($)
YAPP01	UserCal V1	User definable calibration routine with external weights	73
YAPP012	UserCal Advanced	User definable calibration routine with external weights and calibration history via HTML	529
YAPP02	USP V2	Determination of the operating range according to USP Chapter 41	144
YAPP022	USP Advanced	Software for determination of the operating range according to USP Chapter 41 with HTML evaluation	320
YAPP03	Backweigher Light V1	Simple differential weighing with automatic sample numeration (100 samples max.)	359
YAPP032	Backweigher Light V2	Simple differential weighing with lots|batches and automatic sample numeration (5 × 100 samples max.)	431
YAPP033	Backweigher Light V3	Simple differential weighing with individual sample numeration	502
YAPP04	Pipette Check Light V1	Check|calibrate fixed volume and variable piston pipettes according to ISO 8655 tolerances	359
YAPP042	Pipette Check Advanced	Test routine for easy and accurate testing of pipettes with HTML evaluation for the last check	543
YAPP05	Formulation V1	Simple formulation with integrated recipe memory	502
YAPP06	Tablet Checker V1	Tablet checker according to Pharmacopeia standards	717
YAPP10	Residual Dirt Analysis	Gravimetric determination of residual dirt according to VDA19, with individual Sample ID (alphanumeric)	932
YAPP11	QR and Barcode Label Creator	Requirement for printing labels on the YDP30 printer	209
YAPP12	Easy ID	Simple weighing application with individual alpha–numeric sample ID	70
YAPP100	Web Services	Activation license for web services	348

Example... Q-App: UserCal Advanced
Guided external calibration process with up to 5 definable weights.

The workflow has two levels, an administrator and a user level. Administrators are allowed to define up to 5 different weight values, including the ID, value and permissible tolerances. Users are only allowed to perform the calibration process. The process runs automatically and the user is guided through the calibration process. Data acquisition and evaluation are done automatically. Documentation can be performed on a Sartorius printer and/or via Ethernet on the basis of Q-Web with HTML visualization.

Configuring a Cubis®

Please use the fields to enter the selection made with the icon.

Example

| M | S | A | | 524P | | – | 0 | T | R | – | D | I | | I | P |
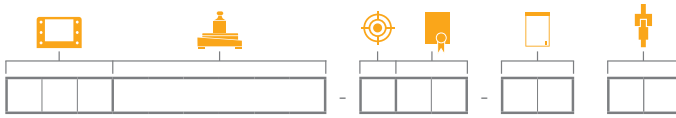
Cubis® Display | Control Unit Model
Select the display and control unit and enter it in the field marked with the icon

Types	MSA	MSU	MSE
Operation	Touch screen, keys for important basic functions	Keys	Keys
Display	High-resolution color TFT, 5.7" graphic display	High-resolution black | white, 5.7" graphical display	Liquid crystal display, black | white
Adaptation of the display and control unit	Tiltable display, removable display and control unit	Tiltable display, removable display and control unit	Removable display and control unit
Standard data interfaces	– USB port (integrated into weighing module) – RS-232C accessory interface, 25-pin (integrated into weighing module) – Ethernet (integrated into display and control unit) – Choice of data protocols available (also enables connection to software designed for external manufacturers) – Bluetooth® (optional accessory)		– USB port (integrated into weighing module) – RS-232C accessory interface, 25-pin (integrated into weighing module) – Bluetooth® (optional accessory)
SD card reader	Integrated as standard into display and control unit	Integrated as standard into display and control unit	
Operation of motorized draft shield (only applies to DA, DI or DM draft shield)	Activated by side keys or touch-free using IR sensor (optional); learning capability	Activated by side keys or touch-free using IR sensor (optional); learning capability	Activated by key or touch-free using IR sensor (optional); learning capability

Cubis® Weighing Modules

Please enter the weighing module name, starting from the left, in the field identified by the icon.

Balance Type	Readability			# of Decimal Places	Weighing Modules	Automatic Motorized Leveling Compatibility
Ultra-Micro	0.1 µg	0.0001 mg	0.0000001 g	7	2.7S	No
Micro	1 µg	0.001 mg	0.000001 g	6	3.6P, 6.6S	No
Semi-Micro	10 µg	0.01 mg	0.00001 g	5	125P, 225S, 225P	Yes
Analytical	100 µg	0.1 mg	0.0001 g	4	124S, 224S, 324S, 324P, 524S, 524P	Yes
Precision	1000 µg	1 mg	0.001 g	3	323S, 623S, 623P, 1203S, 2203S, 2203P, 3203S, 5203S, 5203P	Yes
		10 mg	0.01 g	2	1202S, 2202S, 4202S, 5202S, 6202S, 6202P	Yes
					8202S, 10202S, 14202S, 14202P	No
		100 mg	0.1 g	1	5201S	Yes
					8201S, 12201S, 20201S, 36201S, 36201P, 70201S	No
		1000 mg	1 g	0	36200S, 70200S	No

Cubis® Leveling

Select the type of leveling and enter identifier "1" or "0" in the field marked by the icon. Use the above table to verify automatic motorized leveling compatibility for each weighing module.

1 **Fully Automatic Motorized Leveling**
Cubis® balance is automatically leveled at the touch of a button (comes standard on all Cubis® models; not applicable for weighing modules > 6.2 kg, ultra-micro, and micro)

0 **Manual, Guide-Assisted Leveling**
Cubis® shows the level indicator on the display and provides support for rapid leveling (a standard feature on MSA and MSU display and control units; for MSE units, only symbols are provided as an aid for manual leveling; (mandatory for all Cubis® weighing modules > 6.2 kg, ultra-micro, and micro)

Cubis® Test Certificates

Select a test certificate and enter the identifier in the field marked with the icon.

00 Standard certificate of conformity to specifications

TR Like 00, but with a detailed test protocol

Cubis® Draft Shields

Select a draft shield and enter the corresponding identifier in the field marked with the icon.

D0

No draft shield
Weighing modules:
- Precision, 0.01 g, 0.1 g, 1 g readability
  (pan size: 206 × 206 mm and 400 × 300 mm)
- Not applicable for model 5202S

DR

Removable, flat, stainless steel
Weighing modules:
- Precision, 1 mg readability and model 5202S (pan size: 140 × 140 mm)
- For weighing in areas where glass is not permitted or no draft shield is wanted

DE

Manual, glass
Chamber height: 172 mm (6.8")
Weighing modules:
- Precision, 1 mg readability and model 5202S (pan size: 140 × 140 mm)

DU

Manual, glass
Chamber height = 261 mm (10.3")
Weighing modules:
- Semi-Micro, Analytical
  (pan size: 85 × 85 mm)
- Precision, 1 mg readability and model 5202S (pan size: 140 x 140 mm)

DA

Automatic, glass
Chamber height = 250 mm (9.8")
Learning capability
Weighing modules:
- Semi-Micro, Analytical
  (pan size: 85 × 85 mm)
- Precision, 1 mg readability and model 5202S

DI

Automatic, glass
Chamber height = 250 mm (9.8")
Learning capability
Integrated ionizer - to eliminate electrostatic charges
Weighing modules:
- Semi-Micro, Analytical
  (pan size: 85 × 85 mm)
- Precision, 1 mg readability and model 5202S (pan size: 140 × 140 mm)

DM

Automatic, glass
Chamber height: 67 mm (2.6")
Learning capability
Weighing modules:
- 2.7S (pan size: 20 mm)
- 3.6P & 6.6S (pan size: 30 mm)

DF

Manual, stainless steel
Chamber height: 20 mm (0.78")
Designed for weighing filters
Weighing modules:
- 2.7S & 6.6S only
- Standard pan size: 50 mm
- Optional pan sizes: 75 mm and 90 mm

Cubis® Interface Module Options

Select an additional interface module if necessary.

IR 25-pin RS232 interface
IB Bluetooth®, wireless interface
IP 9-pin RS232 with PS2 port interface (for connecting a keyboard or barcode scanner)

Configure

Cubis® Ultra-Micro Balances – Specifications & Pricing

2.7S
Capacity: 2.1 g
Reproducibility (±): 0.25 µg
Calibration Type: isoCAL
Pan Size Dimensions [mm|in.]: 20|0.8 ∅

Readability: 0.1 µg
Linearity (±): 0.9 µg
Calibration Weight: 2 g

Model	Shipping Wt (lbs)	US List Price ($)
MSA2.7S-000-DM	27	32,090
MSU2.7S-000-DM	27	31,575
MSE2.7S-000-DM	26	30,545

2.7S (with DF Filter Draft Shield)
Capacity: 2.1 g
Reproducibility (±): 0.25 µg
Calibration Type: isoCAL
Pan Size Dimensions [mm|in.]: 50*|1.97 ∅

Readability: 0.1 µg
Linearity (±): 0.9 µg
Calibration Weight: 2 g

Model	Shipping Wt (lbs)	US List Price ($)
MSA2.7S-000-DF	29	32,910
MSU2.7S-000-DF	29	32,395
MSE2.7S-000-DF	28	31,365

Cubis® Micro Balances – Specifications & Pricing

6.6S
Capacity: 6.1 g
Reproducibility (±): 1 µg
Calibration Type: isoCAL
Pan Size Dimensions [mm|in.]: 30|1.2 ∅

Readability: 1 µg
Linearity (±): 4 µg
Calibration Weight: 5 g

Model	Shipping Wt (lbs)	US List Price ($)
MSA6.6S-000-DM	27	25,440
MSU6.6S-000-DM	27	24,925
MSE6.6S-000-DM	26	23,895

6.6S (with DF Filter Draft Shield)
Capacity: 6.1 g
Reproducibility (±): 1 µg
Calibration Type: isoCAL
Pan Size Dimensions [mm|in.]: 50*|1.97 ∅

Readability: 1 µg
Linearity (±): 4 µg
Calibration Weight: 5 g

Model	Shipping Wt (lbs)	US List Price ($)
MSA6.6S-000-DF	29	26,260
MSU6.6S-000-DF	29	25,745
MSE6.6S-000-DF	28	24,715

3.6P
Capacity: 1.1 | 2.1 | 3.1 g
Reproducibility (±): 3 | 4 | 5 µg
Calibration Type: isoCAL
Pan Size Dimensions [mm|in.]: 30|1.2 ∅

Readability: 1 | 2 | 5 µg
Linearity (±): 4 µg
Calibration Weight: 2 + 1# g

Model	Shipping Wt (lbs)	US List Price ($)
MSA3.6P-000-DM	27	19,780
MSU3.6P-000-DM	27	19,265
MSE3.6P-000-DM	26	18,235

MSE6.6S-000-DM

Cubis® Configured Upgrade Options	add to List Price ($)
Replace 00 Certificate with TR certificate (example: MSE2.7S-0TR-DF)	100

Interface Module Options	
IB (Bluetooth)	200
IP (9-pin RS232|PS2)	200
IR (25-pin RS232)	200

custom weight set required, contact Sartorius for more information

* For DF draft shield models, 75 mm and 90 mm filter weigh pan sizes are available as accessories

Cubis® Semi-Micro Balances – Specifications & Pricing

225S
Capacity: 220 g Readability: 0.01 mg
Reproducibility (±): 0...60 g: 0.015 mg │ 60...220 g: 0.025 mg
Linearity (±): 0.1 mg
Calibration Type: isoCAL Calibration Weight: 200 g
Pan Size Dimensions [mm│in.]: 85 x 85 │ 3.3 x 3.3

Model	Shipping Wt (lbs)	US List Price ($)
MSA225S-100-DU	32	12,360
MSA225S-100-DA	34	14,420
MSA225S-100-DI	35	15,450
MSU225S-100-DU	32	11,845
MSU225S-100-DA	34	13,905
MSU225S-100-DI	35	14,935
MSE225S-100-DU	30	10,815
MSE225S-100-DA	33	12,875
MSE225S-100-DI	33	13,905

225P
Capacity: 60 │ 120 │ 220 g Readability: 0.01 │ 0.02 │ 0.05 mg
Reproducibility (±): 0...60 g: 0.015 mg │ 60...220 g: 0.04 mg
Linearity (±): 0.15 mg
Calibration Type: isoCAL Calibration Weight: 200 g
Pan Size Dimensions [mm│in.]: 85 x 85 │ 3.3 x 3.3

Model	Shipping Wt (lbs)	US List Price ($)
MSA225P-100-DU	32	10,840
MSA225P-100-DA	34	12,900
MSA225P-100-DI	35	13,930
MSU225P-100-DU	32	10,325
MSU225P-100-DA	34	12,385
MSU225P-100-DI	35	13,415
MSE225P-100-DU	30	9,295
MSE225P-100-DA	33	11,355
MSE225P-100-DI	33	12,385

125P
Capacity: 60 │ 120 g Readability: 0.01 │ 0.1 mg
Reproducibility (±): 0...60 g: 0.015 mg│ 60...120 g: 0.06 mg
Linearity (±): 0.15 mg
Calibration Type: isoCAL Calibration Weight: 100 g
Pan Size Dimensions [mm│in.]: 85 x 85 │ 3.3 x 3.3

Model	Shipping Wt (lbs)	US List Price ($)
MSA125P-100-DU	32	8,240
MSA125P-100-DA	34	10,300
MSA125P-100-DI	35	11,330
MSU125P-100-DU	32	7,725
MSU125P-100-DA	34	9,785
MSU125P-100-DI	35	10,815
MSE125P-100-DU	30	6,695
MSE125P-100-DA	33	8,755
MSE125P-100-DI	33	9,785

MSA225S-100-DI

Cubis® Analytical Balances – Specifications & Pricing

524S
Capacity: 520 g
Reproducibility (±): 0.1 mg
Calibration Type: isoCAL
Pan Size Dimensions [mm|in.]: 85 x 85 | 3.3 x 3.3
Readability: 0.1 mg
Linearity (±): 0.4 mg
Calibration Weight: 500 g

Model	Shipping Wt (lbs)	US List Price ($)
MSA524S-100-DU	30	9,790
MSA524S-100-DA	33	11,850
MSA524S-100-DI	33	12,880
MSU524S-100-DU	30	9,275
MSU524S-100-DA	33	11,335
MSU524S-100-DI	33	12,365
MSE524S-100-DU	29	8,245
MSE524S-100-DA	31	10,305
MSE524S-100-DI	32	11,335

524P
Capacity: 120 | 240 | 520 g
Reproducibility (±): 0.15 | 0.2 | 0.4 mg
Calibration Type: isoCAL
Pan Size Dimensions [mm|in.]: 85 x 85 | 3.3 x 3.3
Readability: 0.1 | 0.2 | 0.5 mg
Linearity (±): 0.5 mg
Calibration Weight: 500 g

Model	Shipping Wt (lbs)	US List Price ($)
MSA524P-100-DU	30	8,240
MSA524P-100-DA	33	10,300
MSA524P-100-DI	33	11,330
MSU524P-100-DU	30	7,725
MSU524P-100-DA	33	9,785
MSU524P-100-DI	33	10,815
MSE524P-100-DU	29	6,695
MSE524P-100-DA	31	8,755
MSE524P-100-DI	32	9,785

custom weight set required, contact Sartorius for more information

324S
Capacity: 320 g
Reproducibility (±): 0.1 mg
Calibration Type: isoCAL
Pan Size Dimensions [mm|in.]: 85 x 85 | 3.3 x 3.3
Readability: 0.1 mg
Linearity (±): 0.3 mg
Calibration Weight: 200 + 100# g

Model	Shipping Wt (lbs)	US List Price ($)
MSA324S-100-DU	30	8,350
MSA324S-100-DA	32	10,410
MSA324S-100-DI	33	11,440
MSU324S-100-DU	30	7,835
MSU324S-100-DA	32	9,895
MSU324S-100-DI	33	10,925
MSE324S-100-DU	28	6,805
MSE324S-100-DA	31	8,865
MSE324S-100-DI	31	9,895

324P
Capacity: 80 | 160 | 320 g
Reproducibility (±): 0.1 | 0.2 | 0.4 mg
Calibration Type: isoCAL
Pan Size Dimensions [mm|in.]: 85 x 85 | 3.3 x 3.3
Readability: 0.1 | 0.2 | 0.5 mg
Linearity (±): 0.5 mg
Calibration Weight: 200 + 100# g

Model	Shipping Wt (lbs)	US List Price ($)
MSA324P-100-DU	30	7,570
MSA324P-100-DA	32	9,630
MSA324P-100-DI	33	10,660
MSU324P-100-DU	30	7,055
MSU324P-100-DA	32	9,115
MSU324P-100-DI	33	10,145
MSE324P-100-DU	28	6,025
MSE324P-100-DA	31	8,085
MSE324P-100-DI	31	9,115

Cubis® Configured Upgrade Options	add to List Price ($)
Replace 00 Certificate with TR certificate (example: MSA524S-1TR-DA)	100
Interface Module Options	
IB (Bluetooth)	200
IP (9-pin RS232|PS2)	200
IR (25-pin RS232)	200

Cubis® Analytical Balances – Specifications & Pricing

224S

Capacity: 220 g   Readability: 0.1 mg
Reproducibility (±): 0.07 mg   Linearity (±): 0.2 mg
Calibration Type: isoCAL   Calibration Weight: 200 g
Pan Size Dimensions [mm|in.]: 85 x 85 | 3.3 x 3.3

Model	Shipping Wt (lbs)	US List Price ($)
MSA224S-100-DU	30	7,620
MSA224S-100-DA	32	9,680
MSA224S-100-DI	33	10,710
MSU224S-100-DU	30	7,105
MSU224S-100-DA	32	9,165
MSU224S-100-DI	33	10,195
MSE224S-100-DU	28	6,075
MSE224S-100-DA	31	8,135
MSE224S-100-DI	31	9,165

124S

Capacity: 120 g   Readability: 0.1 mg
Reproducibility (±): 0.1 mg   Linearity (±): 0.2 mg
Calibration Type: isoCAL   Calibration Weight: 100 g
Pan Size Dimensions [mm|in.]: 85 x 85 | 3.3 x 3.3

Model	Shipping Wt (lbs)	US List Price ($)
MSA124S-100-DU	30	6,540
MSA124S-100-DA	32	8,600
MSA124S-100-DI	33	9,630
MSU124S-100-DU	30	6,025
MSU124S-100-DA	32	8,085
MSU124S-100-DI	33	9,115
MSE124S-100-DU	28	4,995
MSE124S-100-DA	31	7,055
MSE124S-100-DI	31	8,085

Cubis® Configured Upgrade Options	add to List Price ($)
Replace 00 Certificate with TR certificate (example: MSU224S-1TR-DU)	100

Interface Module Options	
IB (Bluetooth)	200
IP (9-pin RS232|PS2)	200
IR (25-pin RS232)	200

MSA124S-100-DI with YFH01MS Q-Grip Accessory

Cubis® Precision (3-place) Balances - Specifications & Pricing

5203S

Capacity: 5200 g Readability: 1 mg
Reproducibility (±): 1 mg Linearity (±): 5 mg
Calibration Type: isoCAL Calibration Weight: 5000 g
Pan Size Dimensions [mm|in.]: 140 x 140 | 5.5 x 5.5

Model	Shipping Wt (lbs)	US List Price ($)
MSA5203S-100-DR	23	10,080
MSA5203S-100-DE	25	10,080
MSA5203S-100-DU	33	10,490
MSA5203S-100-DA	34	12,550
MSA5203S-100-DI	35	13,580
MSU5203S-100-DR	23	9,565
MSU5203S-100-DE	25	9,565
MSU5203S-100-DU	33	9,975
MSU5203S-100-DA	34	12,035
MSU5203S-100-DI	35	13,065
MSE5203S-100-DR	23	8,535
MSE5203S-100-DE	24	8,535
MSE5203S-100-DU	32	8,945
MSE5203S-100-DA	33	11,005
MSE5203S-100-DI	33	12,035

5203P

Capacity: 1200 | 2400 | 5200 g Readability: 1 | 2 | 5 mg
Reproducibility (±): 1 mg Linearity (±): 5 mg
Calibration Type: isoCAL Calibration Weight: 5000 g
Pan Size Dimensions [mm|in.]: 140 x 140 | 5.5 x 5.5

Model	Shipping Wt (lbs)	US List Price ($)
MSA5203P-100-DR	23	9,680
MSA5203P-100-DE	25	9,680
MSA5203P-100-DU	33	10,090
MSA5203P-100-DA	34	12,150
MSA5203P-100-DI	35	13,180
MSU5203P-100-DR	23	9,165
MSU5203P-100-DE	25	9,165
MSU5203P-100-DU	33	9,575
MSU5203P-100-DA	34	11,635
MSU5203P-100-DI	35	12,665
MSE5203P-100-DR	23	8,135
MSE5203P-100-DE	24	8,135
MSE5203P-100-DU	32	8,545
MSE5203P-100-DA	33	10,605
MSE5203P-100-DI	33	11,635

3203S

Capacity: 3200 g Readability: 1 mg
Reproducibility (±): 1 mg Linearity (±): 5 mg
Calibration Type: isoCAL Calibration Weight: 2000 g
Pan Size Dimensions [mm|in.]: 140 x 140 | 5.5 x 5.5

Model	Shipping Wt (lbs)	US List Price ($)
MSA3203S-100-DR	23	8,930
MSA3203S-100-DE	25	8,930
MSA3203S-100-DU	33	9,340
MSA3203S-100-DA	34	11,400
MSA3203S-100-DI	35	12,430
MSU3203S-100-DR	23	8,415
MSU3203S-100-DE	25	8,415
MSU3203S-100-DU	33	8,825
MSU3203S-100-DA	34	10,885
MSU3203S-100-DI	35	11,915
MSE3203S-100-DR	23	7,385
MSE3203S-100-DE	24	7,385
MSE3203S-100-DU	32	7,795
MSE3203S-100-DA	33	9,855
MSE3203S-100-DI	33	10,885

MSU5203S-100-DR

Cubis® Precision (3-place) Balances – Specifications & Pricing

2203S

Capacity: 2200 g   Readability: 1 mg
Reproducibility (±): 1 mg   Linearity (±): 3 mg
Calibration Type: isoCAL   Calibration Weight: 2000 g
Pan Size Dimensions [mm|in.]: 140 x 140 | 5.5 x 5.5

Model	Shipping Wt (lbs)	US List Price ($)
MSA2203S-100-DR	23	8,680
MSA2203S-100-DE	25	8,680
MSA2203S-100-DU	33	9,090
MSA2203S-100-DA	34	11,150
MSA2203S-100-DI	35	12,180
MSU2203S-100-DR	23	8,165
MSU2203S-100-DE	25	8,165
MSU2203S-100-DU	33	8,575
MSU2203S-100-DA	34	10,635
MSU2203S-100-DI	35	11,665
MSE2203S-100-DR	23	7,135
MSE2203S-100-DE	24	7,135
MSE2203S-100-DU	32	7,545
MSE2203S-100-DA	33	9,605
MSE2203S-100-DI	33	10,635

2203P

Capacity: 1010 | 2200 g   Readability: 1 | 10 mg
Reproducibility (±): 1 | 6 mg   Linearity (±): 5 mg
Calibration Type: isoCAL   Calibration Weight: 2000 g
Pan Size Dimensions [mm|in.]: 140 x 140 | 5.5 x 5.5

Model	Shipping Wt (lbs)	US List Price ($)
MSA2203P-100-DR	23	8,430
MSA2203P-100-DE	25	8,430
MSA2203P-100-DU	33	8,840
MSA2203P-100-DA	34	10,900
MSA2203P-100-DI	35	11,930
MSU2203P-100-DR	23	7,915
MSU2203P-100-DE	25	7,915
MSU2203P-100-DU	33	8,325
MSU2203P-100-DA	34	10,385
MSU2203P-100-DI	35	11,415
MSE2203P-100-DR	23	6,885
MSE2203P-100-DE	24	6,885
MSE2203P-100-DU	32	7,295
MSE2203P-100-DA	33	9,355
MSE2203P-100-DI	33	10,385

1203S

Capacity: 1200 g   Readability: 1 mg
Reproducibility (±): 0.7 mg   Linearity (±): 2 mg
Calibration Type: isoCAL   Calibration Weight: 1000 g
Pan Size Dimensions [mm|in.]: 140 x 140 | 5.5 x 5.5

Model	Shipping Wt (lbs)	US List Price ($)
MSA1203S-100-DR	23	7,780
MSA1203S-100-DE	25	7,780
MSA1203S-100-DU	33	8,190
MSA1203S-100-DA	34	10,250
MSA1203S-100-DI	35	11,280
MSU1203S-100-DR	23	7,265
MSU1203S-100-DE	25	7,265
MSU1203S-100-DU	33	7,675
MSU1203S-100-DA	34	9,735
MSU1203S-100-DI	35	10,765
MSE1203S-100-DR	23	6,235
MSE1203S-100-DE	24	6,235
MSE1203S-100-DU	32	6,645
MSE1203S-100-DA	33	8,705
MSE1203S-100-DI	33	9,735

MSA1203S-100-DI

Cubis® Precision (3-place) Balances – Specifications & Pricing

623S
Capacity: 620 g Readability: 1 mg
Reproducibility (±): 0.7 mg Linearity (±): 2 mg
Calibration Type: isoCAL Calibration Weight: 500 g
Pan Size Dimensions [mm|in.]: 140 x 140 | 5.5 x 5.5

Model	Shipping Wt (lbs)	US List Price ($)
MSA623S-100-DR	22	6,380
MSA623S-100-DE	24	6,380
MSA623S-100-DU	32	6,790
MSA623S-100-DA	33	8,850
MSA623S-100-DI	33	9,880
MSU623S-100-DR	22	5,865
MSU623S-100-DE	24	5,865
MSU623S-100-DU	32	6,275
MSU623S-100-DA	33	8,335
MSU623S-100-DI	33	9,365
MSE623S-100-DR	22	4,835
MSE623S-100-DE	22	4,835
MSE623S-100-DU	30	5,245
MSE623S-100-DA	31	7,305
MSE623S-100-DI	32	8,335

623P
Capacity: 150|300|620 mg Readability: 1 | 2 | 5 mg
Reproducibility (±): 1|2|4 mg Linearity (±): 5 mg
Calibration Type: isoCAL Calibration Weight: 500 g
Pan Size Dimensions [mm|in.]: 140 x 140 | 5.5 x 5.5

Model	Shipping Wt (lbs)	US List Price ($)
MSA623P-100-DR	22	5,780
MSA623P-100-DE	24	5,780
MSA623P-100-DU	32	6,190
MSA623P-100-DA	33	8,250
MSA623P-100-DI	33	9,280
MSU623P-100-DR	22	5,265
MSU623P-100-DE	24	5,265
MSU623P-100-DU	32	5,675
MSU623P-100-DA	33	7,735
MSU623P-100-DI	33	8,765
MSE623P-100-DR	22	4,235
MSE623P-100-DE	22	4,235
MSE623P-100-DU	30	4,645
MSE623P-100-DA	31	6,705
MSE623P-100-DI	32	7,735

323S
Capacity: 320 g Readability: 1 mg
Reproducibility (±): 0.7 mg Linearity (±): 2 mg
Calibration Type: isoCAL Calibration Weight: 200 g
Pan Size Dimensions [mm|in.]: 140 x 140 | 5.5 x 5.5

Model	Shipping Wt (lbs)	US List Price ($)
MSA323S-100-DR	22	5,680
MSA323S-100-DE	24	5,680
MSA323S-100-DU	32	6,090
MSA323S-100-DA	33	8,150
MSA323S-100-DI	33	9,180
MSU323S-100-DR	22	5,165
MSU323S-100-DE	24	5,165
MSU323S-100-DU	32	5,575
MSU323S-100-DA	33	7,635
MSU323S-100-DI	33	8,665
MSE323S-100-DR	22	4,135
MSE323S-100-DE	22	4,135
MSE323S-100-DU	30	4,545
MSE323S-100-DA	31	6,605
MSE323S-100-DI	32	7,635

MSA323S-100-DE

Cubis® Configured Upgrade Options	add to List Price ($)
Replace 00 Certificate with TR certificate (example: MSE323S-1TR-DE)	100

Interface Module Options	
IB (Bluetooth)	200
IP (9-pin RS232|PS2)	200
IR (25-pin RS232)	200

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Cubis® Precision (2-place) Balances – Specifications & Pricing

14202S

Capacity: 14200 g Readability: 0.01 g
Reproducibility (±): 0.01 g Linearity (±): 0.03 g
Calibration Type: isoCAL Calibration Weight: 5 + 5# kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA14202S-000-D0	21	8,810
MSU14202S-000-D0	21	8,295
MSE14202S-000-D0	20	7,265

14202P

Capacity: 3500 | 7000 | 14200 g Readability: 0.01 | 0.02 | 0.05 g
Reproducibility (±): 0.01 | 0.02 | 0.04 g Linearity (±): 0.05 g
Calibration Type: isoCAL Calibration Weight: 5 + 5# kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA14202P-000-D0	21	7,780
MSU14202P-000-D0	21	7,265
MSE14202P-000-D0	20	6,235

10200S

Capacity: 10200 g Readability: 0.01 g
Reproducibility (±): 0.007 g Linearity (±): 0.02 g
Calibration Type: isoCAL Calibration Weight: 5 + 5# kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA10202S-000-D0	21	7,420
MSU10202S-000-D0	21	6,905
MSE10202S-000-D0	20	5,875

8202S

Capacity: 8200 g Readability: 0.01 g
Reproducibility (±): 0.007 g Linearity (±): 0.02 g
Calibration Type: isoCAL Calibration Weight: 5 kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA8202S-000-D0	21	6,590
MSU8202S-000-D0	21	6,075
MSE8202S-000-D0	20	5,045

6202S

Capacity: 6200 g Readability: 0.01 g
Reproducibility (±): 0.007 g Linearity (±): 0.02 g
Calibration Type: isoCAL Calibration Weight: 5 kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA6202S-100-D0	21	5,980
MSU6202S-100-D0	21	5,465
MSE6202S-100-D0	20	4,435

6202P

Capacity: 1500 | 3000 | 6200 g Readability: 0.01 | 0.02 | 0.05 g
Reproducibility (±): 0.007 | 0.02 | 0.04 g Linearity (±): 0.05 g
Calibration Type: isoCAL Calibration Weight: 5 kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA6202P-100-D0	21	5,510
MSU6202P-100-D0	21	4,995
MSE6202P-100-D0	20	3,965

MSA10202S-000-D0 with YWP03MS Q-Grid Accessory

custom weight set required, contact Sartorius for more information

Cubis® Precision (2-place) Balances – Specifications & Pricing

5202S
Capacity: 5200 g Readability: 0.01 g
Reproducibility (±): 0.006 g Linearity (±): 0.01 g
Calibration Type: isoCAL Calibration Weight: 5 kg
Pan Size Dimensions [mm|in.]: 140 x 140 | 5.5 x 5.5

Model	Shipping Wt (lbs)	US List Price ($)
MSA5202S-100-DR	23	6,440
MSA5202S-100-DE	25	6,440
MSA5202S-100-DU	33	6,850
MSA5202S-100-DA	34	8,910
MSA5202S-100-DI	35	9,940
MSU5202S-100-DR	23	5,925
MSU5202S-100-DE	25	5,925
MSU5202S-100-DU	33	6,335
MSU5202S-100-DA	34	8,395
MSU5202S-100-DI	35	9,425
MSE5202S-100-DR	23	4,895
MSE5202S-100-DE	24	4,895
MSE5202S-100-DU	32	5,305
MSE5202S-100-DA	33	7,365
MSE5202S-100-DI	33	8,395

4202S
Capacity: 4200 g Readability: 0.01 g
Reproducibility (±): 0.007 g Linearity (±): 0.02 g
Calibration Type: isoCAL Calibration Weight: 2 kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA4202S-100-D0	21	5,360
MSU4202S-100-D0	21	4,845
MSE4202S-100-D0	20	3,815

2202S
Capacity: 2200 g Readability: 0.01 g
Reproducibility (±): 0.007 g Linearity (±): 0.02 g
Calibration Type: isoCAL Calibration Weight: 2 kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA2202S-100-D0	21	5,000
MSU2202S-100-D0	21	4,485
MSE2202S-100-D0	20	3,455

MSE4202S-100-D0

1202S
Capacity: 1200 g Readability: 0.01 g
Reproducibility (±): 0.007 g Linearity (±): 0.02 g
Calibration Type: isoCAL Calibration Weight: 1 kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA1202S-100-D0	21	4,640
MSU1202S-100-D0	21	4,125
MSE1202S-100-D0	20	3,095

Cubis® Configured Upgrade Options	add to List Price ($)
Replace 00 Certificate with TR certificate (example: MSE5202S-1TR-DE)	100

Interface Module Options	
IB (Bluetooth)	200
IP (9-pin RS232|PS2)	200
IR (25-pin RS232)	200

Cubis® Precision (1-place) Balances – Specifications & Pricing

12201S

Capacity: 12200 g   Readability: 0.1 g
Reproducibility (±): 0.05 g   Linearity (±): 0.1 g
Calibration Type: isoCAL   Calibration Weight: 5 + 5# kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA12201S-000-D0	21	5,460
MSU12201S-000-D0	21	4,945
MSE12201S-000-D0	20	3,915

8201S

Capacity: 8200 g   Readability: 0.1 g
Reproducibility (±): 0.05 g   Linearity (±): 0.1 g
Calibration Type: isoCAL   Calibration Weight: 5 kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA8201S-000-D0	21	5,050
MSU8201S-000-D0	21	4,535
MSE8201S-000-D0	20	3,505

5201S

Capacity: 5200 g   Readability: 0.1 g
Reproducibility (±): 0.05 g   Linearity (±): 0.1 g
Calibration Type: isoCAL   Calibration Weight: 5 kg
Pan Size Dimensions [mm|in.]: 206 x 206 | 8.1 x 8.1

Model	Shipping Wt (lbs)	US List Price ($)
MSA5201S-100-D0	21	4,070
MSU5201S-100-D0	21	3,555
MSE5201S-100-D0	20	2,525

Cubis® Configured Upgrade Options	add to List Price ($)
Replace 00 Certificate with TR certificate (example: MSE5201S-1TR-D0)	100

Interface Module Options	
IB (Bluetooth)	200
IP (9-pin RS232|PS2)	200
IR (25-pin RS232)	200

custom weight set required, contact Sartorius for more information

MSU8201S-000-D0

Cubis® Precision High-Capacity Balances – Specifications & Pricing

20201S
Capacity: 20200 g   Readability: 0.1 g
Reproducibility (±): 0.1 g   Linearity (±): 0.2 g
Calibration Type: isoCAL   Calibration Weight: 10 kg
Pan Size Dimensions [mm|in.]: 400 x 300 | 15.7 x 11.8

Model	Shipping Wt (lbs)	US List Price ($)
MSA20201S-000-D0	45	6,750
MSU20201S-000-D0	45	6,235
MSE20201S-000-D0	42	5,205

36201S
Capacity: 36200 g   Readability: 0.1 g
Reproducibility (±): 0.1 g   Linearity (±): 0.2 g
Calibration Type: isoCAL   Calibration Weight: 10 kg
Pan Size Dimensions [mm|in.]: 400 x 300 | 15.7 x 11.8

Model	Shipping Wt (lbs)	US List Price ($)
MSA36201S-000-D0	45	8,290
MSU36201S-000-D0	45	7,775
MSE36201S-000-D0	42	6,745

36201P
Capacity: 10200 | 36200 g   Readability: 0.1 | 1 g
Reproducibility (±): 0.1 | 0.5 g Linearity (±): 0.2 g
Calibration Type: isoCAL   Calibration Weight: 10 kg
Pan Size Dimensions [mm|in.]: 400 x 300 | 15.7 x 11.8

Model	Shipping Wt (lbs)	US List Price ($)
MSA36201P-000-D0	45	7,110
MSU36201P-000-D0	45	6,595
MSE36201P-000-D0	42	5,565

70201S
Capacity: 70200 g   Readability: 0.1 g
Reproducibility (±): 0.1 g   Linearity (±): 0.5 g
Calibration Type: isoCAL   Calibration Weight: 20 kg
Pan Size Dimensions [mm|in.]: 400 x 300 | 15.7 x 11.8

Model	Shipping Wt (lbs)	US List Price ($)
MSA70201S-000-D0	45	12,560
MSU70201S-000-D0	45	12,045
MSE70201S-000-D0	42	11,015

36200S
Capacity: 36200 g   Readability: 1 g
Reproducibility (±): 0.5 g   Linearity (±): 1 g
Calibration Type: isoCAL   Calibration Weight: 10 kg
Pan Size Dimensions [mm|in.]: 400 x 300 | 15.7 x 11.8

Model	Shipping Wt (lbs)	US List Price ($)
MSA36200S-000-D0	45	6,030
MSU36200S-000-D0	45	5,515
MSE36200S-000-D0	42	4,485

70200S
Capacity: 70200 g   Readability: 1 g
Reproducibility (±): 0.5 g   Linearity (±): 1 g
Calibration Type: isoCAL   Calibration Weight: 20 kg
Pan Size Dimensions [mm|in.]: 400 x 300 | 15.7 x 11.8

Model	Shipping Wt (lbs)	US List Price ($)
MSA70200S-000-D0	45	9,480
MSU70200S-000-D0	45	8,965
MSE70200S-000-D0	42	7,935

Cubis® Configured Upgrade Options	add to List Price ($)
Replace 00 Certificate with TR certificate (example: MSU36201P-0TR-D0)	100

Interface Module Options

An Interface Module Option (Bluetooth, 9-pin RS232|PS2, or additional RS232) is now available for Cubis Precision High-Capacity models via an external connection box and accessory interface module (option cannot be configured). See accessories section on page 25 for ordering details.

custom weight set required, contact Sartorius for more information

MSE36201S-000-D0
with YDH02MS Display Holder

Cubis® MSA Pre-Configured Balances

If you configure a Cubis® that has a corresponding pre-configured model as listed below (no dashes in the model number), then order the pre-configured model for a faster delivery time as we typically have these models in stock (check availability with Customer Service). Pre-configured Cubis® models are sold as is per the Models below where no modifications are permitted. If an optional interface module (25-pin RS232, Bluetooth, or 9-pin RS232 with PS2) is required, please order the field upgradable accessory version. Cubis® pre-configured models, when applicable, come standard with automatic motorized leveling.

Model	Capacity [g]	Readability	Reproducibility (±)	Linearity (±)	Pan Size [mm|in.]	Calibration Type	Wt [g]	Shipping Wt (lbs)	US List Price ($)
Ultra–Micro w|Detailed Certificate of Conformity									
MSA2.7S0TRDM	2.1	0.1 µg	0.25 µg	0.9 µg	20|0.8 ∅	isoCAL	2	27	32,190
MSA2.7S0TRDF	2.1	0.1 µg	0.25 µg	0.9 µg	50|1.97 ∅	isoCAL	2	29	33,010
Micro w|Detailed Certificate of Conformity									
MSA6.6S0TRDM	6.1	1 µg	1 µg	4 µg	30|1.2 ∅	isoCAL	5	27	25,540
MSA3.6P0TRDM	1.1|2.1|3.1	1|2|5 µg	3|4|5 µg	4 µg	30|1.2 ∅	isoCAL	2 + 1#	27	19,880
Semi–Micro (Automatic Motorized Draft Shield w|Integrated Ionizer and Auto Leveling)									
MSA225S100DI	220	0.01 mg	0...60 g: 0.015 mg | 60...120 g: 0.025 mg	0.1 mg	85×85 | 3.3×3.3	isoCAL	200	35	15,450
MSA225P100DI	60|120|220	0.01|0.02|0.05 mg	0...60 g: 0.015 mg | 60...120 g: 0.04 mg	0.15 mg	85×85 | 3.3×3.3	isoCAL	200	35	13,930
Semi–Micro (Manual, Large Draft Shield w|Auto Leveling)									
MSA225S100DU	220	0.01 mg	0...60 g: 0.015 mg | 60...120 g: 0.025 mg	0.1 mg	85×85 | 3.3×3.3	isoCAL	200	32	12,360
Analytical (Automatic Motorized Draft Shield w|Integrated Ionizer and Auto Leveling)									
MSA224S100DI	220	0.1 mg	0.07 mg	0.2 mg	85×85 | 3.3×3.3	isoCAL	200	33	10,710
MSA324S100DI	320	0.1 mg	0.1 mg	0.3 mg	85×85 | 3.3×3.3	isoCAL	200 + 100#	33	11,440
MSA524S100DI	520	0.1 mg	0.1 mg	0.4 mg	85×85 | 3.3×3.3	isoCAL	500	33	12,880
Analytical (Manual, Large Draft Shield w|Auto Leveling)									
MSA124S100DU	120	0.1 mg	0.1 mg	0.2 mg	85×85 | 3.3×3.3	isoCAL	100	30	6,540
MSA224S100DU	220	0.1 mg	0.07 mg	0.2 mg	85×85 | 3.3×3.3	isoCAL	200	30	7,620
MSA324S100DU	320	0.1 mg	0.1 mg	0.3 mg	85×85 | 3.3×3.3	isoCAL	200 + 100#	30	8,350

custom weight set required, contact Sartorius for more information

Model	Capacity [g]	Readability	Reproducibility (±)	Linearity (±)	Pan Size [mm|in.]	Calibration Type	Wt [g]	Shipping Wt (lbs)	US List Price ($)
Precision (Manual, Small Draft Shield w|Auto Leveling)									
MSA623S100DE	620	1 mg	0.7 mg	2 mg	140 × 140 | 5.5 × 5.5	isoCAL	500	24	6,380
MSA1203S100DE	1200	1 mg	0.7 mg	2 mg	140 × 140 | 5.5 × 5.5	isoCAL	1000	25	7,780
MSA3203S100DE	3200	1 mg	1 mg	5 mg	140 × 140 | 5.5 × 5.5	isoCAL	2000	25	8,930
Precision (No Draft Shield w|Auto Leveling)									
MSA2202S100D0	2200	0.01 g	0.007 g	0.02 g	206 × 206 | 8.1 x 8.1	isoCAL	2000	21	5,000
MSA4202S100D0	4200	0.01 g	0.007 g	0.02 g	206 × 206 | 8.1 × 8.1	isoCAL	2000	21	5,360
MSA6202S100D0	6200	0.01 g	0.007 g	0.02 g	206 × 206 | 8.1 × 8.1	isoCAL	5000	21	5,980
Precision (No Draft Shield)									
MSA8202S000D0	8200	0.01 g	0.007 g	0.02 g	206 × 206 | 8.1 × 8.1	isoCAL	5000	21	6,590
MSA8201S000D0	8200	0.1 g	0.05 g	0.1 g	206 × 206 | 8.1 × 8.1	isoCAL	5000	21	5,050

MSA224S100DU

High Capacity Micro & Semi-Micro Balances (non-Cubis® series)

Features (ME36S)

- Fully automatic draft shield system
- Coated conductive draft shield, helps prevent static build-up
- Stored calibration│adjustment records
- Four digital filter levels optimally adapts to ambient conditions

Applications

- Unit Toggling
- % Weighing
- Checkweighing
- Averaging│Animal Weighing
- Formulation
- Net-Total
- Statistics
- Backweighing
- Timer
- Density Determination
- Memory (300 samples)

ME36S

Specifications & Pricing

Model	Capacity [g]	Readability [µg]	Reproducibility [µg] (±)	Linearity [µg] (±)	Pan Size [mm│in.]	Calibration Type	Wt [g]	Shipping Wt (lbs)	US List Price ($)
ME36S	31	1	2	10	∅ 30│1.2	isoCAL	20 + 10#	40	21,040

custom weight set required. Contact Sartorius for more information

Features (CPA26P & CPA225D)

- Monolithic weight cell for fast reliable results
- Large manual draft shield
- (CPA26P) 5-gram weighing range is available over the entire 21 gram range
- Positive "click-action" keys
- Four digital filter levels optimally adapts to ambient conditions
- (CPA225D) Dual-range semi-micro balance with 100/220g capacity x 0.01/0.1 mg readability

Applications

- Counting
- % Weighing
- Unit Toggle
- Averaging│Animal Weighing
- Net-Total

CPA26P

CPA225D

Specifications & Pricing

Model	Capacity [g]	Readability [µg]	Reproducibility [µg] (±)	Linearity [µg] (±)	Pan Size [mm│in.]	Calibration Type	Wt [g]	Shipping Wt (lbs)	US List Price ($)
CPA26P	5│21	2│10	4	8	∅ 50│1.97	isoCAL	20	22	15,685
CPA225D	40│100│220	10│10│100	20│50│100	30│100│200	∅ 80│3.1	isoCAL	200	22	6,200

Item	Description	US List Price ($)	Ultra Micro, 2.7S	Micro, 6.6S	Micro, 3.6P	High Cap Micro, ME36S	High Cap Micro, CPA26P	5-place Semi-Micro, CPA225D	5-place Semi-Micro, Cubis®	4-place Analytical	3-place Precision	2- & 1-place Precision	2-place Precision, 5202S	High Cap Precision
Printers, Cables and Data Communication														
YDP30	Thermal Transfer Printer (GMP/GLP compliant)	1,245	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
69Y03285	Standard paper and ink ribbon set, 90 m	85	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
69Y03286	Self-adhesive paper and ink ribbon set, 90 m	92	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
69Y03287	Standard thermal paper, 5 rolls of 24 m	50	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
69Y03288	Self-adhesive thermal paper, 5 rolls of 13 m	78	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
69Y03094	Self-adhesive labels, 58 x 100 mm (350 pcs)	75	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
69Y03093	Self-adhesive labels, 58 x 76 mm (500 pcs)	61	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
69Y03092	Self-adhesive labels, 58 x 30 mm (1,000 pcs)	57	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YDP10-0CE	Cubis Data printer, includes cable	895	✓	✓					✓	✓	✓	✓	✓	✓
YDP10BT-0CE	Cubis Bluetooth Data printer, wireless	895	✓	✓					✓	✓	✓	✓	✓	
YDP20-0CE	Data Printer, with statistics and time|date functions, includes cable	995	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6906918	Ink Ribbon, fits YDP10 and YDP20 printers	47	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6906937	Paper (pkg of 5 rolls), fits YDP10 and YDP20	42	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YCC05-001M2	Cable, 25-pin to 9-pin RS232, 5 ft.	90	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YCC05-001M5	Cable, 25-pin to 9-pin RS232, 16 ft.	100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YCC05-001M10	Cable, 25-pin to 9-pin RS232, 33 ft.	120	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YCC05-001M15	Cable, 25-pin to 9-pin RS232, 49 ft.	135	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YCC01-USBM2	Cable, 25-pin RS232 to USB, 6.5 ft.	130	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YCC01-MSD3	Extended Cubis display cable for MSA|MSU, 3 m	212	✓	✓	✓				✓	✓	✓	✓	✓	✓
YCC01-MSED3	Extended Cubis display cable for MSE, 3 m	212	✓	✓	✓				✓	✓	✓	✓	✓	✓
YCC01-MSM3	Extended cable from Cubis weighing to electronics modules, 3 m	310	✓	✓	✓				✓					
YSW05	WinWedge Software, for RS232, with YCC01-USBM2 & YCC05-001M2 cables	440	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YSW06	WinWedge Pro Software, for Ethernet/RS232, with YCC01-USBM2 & YCC05-001M2 cables	650	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YDO001MS-B	Field Upgradeable Interface Module for Cubis, Bluetooth (wireless connection; same as IB option)	200	✓	✓	✓				✓	✓	✓	✓	✓	✓[+]
YDO001MS-P	Field Upgradeable Interface Module for Cubis, 9-pin RS232|PS2 (connection to PC & keyboard or barcode scanner; same as IP option)	200	✓	✓	✓				✓	✓	✓	✓	✓	✓[+]
YDO001MS-R	Field Upgradeable Interface Module for Cubis, 25-pin RS232 (same as IR option)	200	✓	✓	✓				✓	✓	✓	✓	✓	✓[+]
VF4466	Optional External Interface Box for Cubis Prec HiCap; requires Field Upgradeable Interface Module	1,480												✓

[+] Requires VF4466

YDP30 Thermal Transfer Printer

Item	Description	US List Price ($)	Ultra Micro, 2.7S	Micro, 6.6S	Micro, 3.6P	High Cap Micro, ME36S	High Cap Micro, CPA26P	5-place Semi-Micro, CPA225D	5-place Semi-Micro, Cubis®	4-place Analytical	3-place Precision	2- & 1-place Precision	2-place Precision, 5202S	High Cap Precision
Power Supply and Line Cords														
6971987	Power Supply for Cubis & ME36S, 100-240 V	152	✓	✓	✓	✓ +			✓	✓	✓	✓	✓	✓
6900901	Line cord for Cubis & ME36S, 120 volt (USA)	35	✓	✓	✓	✓ +			✓	✓	✓	✓	✓	✓
6900900	Line cord for Cubis & ME36S, 220 volt (Euro)	35	✓	✓	✓	✓ +			✓	✓	✓	✓	✓	✓
6971962	Power supply for ME36S, 120 V/220 V	368				✓ *								
6971991	Power supply for CPA26P & CPA225D, 120 V/220 V	89					✓	✓						
6971954	Line cord for ME36S, CPA26P & CPA225D, 120 V (USA)	37				✓ *	✓	✓						
6971953	Line cord for ME36S, CPA26P & CPA225D, 220 V (Euro)	37				✓ *	✓	✓						
Displays and Input|Output Devices														
YAC01MSA	MSA Display and Control Unit, color touchscreen	2,885	✓	✓	✓				✓	✓	✓	✓	✓	✓
YAC01MSU	MSU Display and Control Unit, B&W graphic display w/ tactile keys	1,660	✓	✓	✓				✓	✓	✓	✓	✓	✓
YAC01MSE	MSE Display and Control Unit , with backlit LCD and tactile keys	865	✓	✓	✓				✓	✓	✓	✓	✓	✓
YBR03PS2	Bar Code Scanner with PS2 Connecting cable; 120 mm scan width	1,030	✓	✓	✓				✓	✓	✓	✓	✓	
YHS01MS	Infrared sensor for touch-free activation of functions	257	✓	✓	✓				✓	✓	✓	✓	✓	✓
YHS02	Hand Switch w/T-Connector, for remote control of print, tare, cal, F, CF or toggle key	410	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YFS01	Foot Switch w/T-Connector, for remote control of print, tare, cal, F, CF or toggle key	370	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YPE01RC	Foot Switch w/T-Connector, for open|close door, tare & print	650	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
YRD11Z	Indicator, red-green-red, for over|under checkweighing, fits RS232, includes T-connetor, 9 ft.	710	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
YRD03Z	Additional Remote Display (LCD), backlit (fits RS232), 3 ft.	450	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YRB05Z	Battery Pack, rechargeable, external for CPA26P, CPA225D and ME36S	625				✓	✓	✓						

+ Use for ME36S models starting with serial number 24307703 and above

* Use for ME36S models with serial numbers up to 24307702

Item	Description	US List Price ($)	Ultra Micro, 2.7S	Micro, 6.6S	Micro, 3.6P	High Cap Micro, ME36S	High Cap Micro, CPA26P	5-place Semi-Micro, CPA225D	5-place Semi-Micro, Cubis®	4-place Analytical	3-place Precision	2- & 1-place Precision	2-place Precision, 5202S	High Cap Precision
Extended Warranty, Installation and IQ/OQ (for more info, see page 164)														
84WAL04	12-month micro balance warranty	500	✓	✓	✓	✓	✓							
84WAL03	12-month semi-micro balance warranty	244						✓	✓					
84WAL01	12-month precision balance warranty	244									✓	✓	✓	✓
84WAL02	12-month analytical balance warranty	244								✓				
84ICL04	Micro balance installation ≤ 0.000001g	434	✓	✓	✓	✓	✓							
84ICL01	Precision balance installation ≥ 0.001g	212									✓	✓	✓	✓
84ICL02	Analytical balance installation 0.0001g	212								✓				
84ICL03	Semi-micro balance installation 0.00001g	212						✓	✓					
84QAL	IQ/OQ Testing	880	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Installation and IQ/OQ pricing is only valid for the continental United States. Travel and Expenses are not included in the prices listed above.

Item	Description	US List Price ($)	Ultra Micro, 2.7S	Micro, 6.6S	Micro, 3.6P	High Cap Micro, ME36S	High Cap Micro, CPA26P	5-place Semi-Micro, CPA225D	5-place Semi-Micro, Cubis®	4-place Analytical	3-place Precision	2- & 1-place Precision	2-place Precision, 5202S	High Cap Precision
Pipette Calibration Kits														
YCP04MS	Pipette Calibration Kit (Hardware), for Cubis 0.01|0.1 mg	1,020							✓	✓				
VF988	Pipette Calibration Kit (Hardware), for Cubis 1 µg	2,920		✓	✓									
Filter Weighing and Anti-Static Accessories														
VF2562	Filter Weighing Pan for DF Draft Shield, ∅ 75 mm	540	✓	✓										
VF2880	Filter Weighing Pan for DF Draft Shield, ∅ 90 mm	755	✓	✓										
YWP01MS	Anti-static weighing pan, ∅ 5.1"	257							✓	✓				
YIB01-0UR	Ionizing Blower (neutralizes static charges)	1,545	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YSTP01	Stat Pen (neutralizes static charges)	1,625	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
U1-69US0094	Static Master	104	✓	✓	✓	✓	✓	✓	✓	✓			✓	
Special Application Accessories														
YDK01MS	Density Determination Kit for liquids and solids, Cubis models with DU, DA or DI draft shield only	980							✓	✓				
YDK02MS	Density Determination Kit for liquids and solids, Cubis models with DE draft shield only (1 mg readability)	980									✓			
YDK01	Density Kit for CPA225D (software not included)	890						✓						
YFH01MS	Q-Grip, Flexible holder for weigh flasks, vials, filters up to 120 mm (replaces original weigh pan)	352							✓	✓				
YWP03MS	Q-Grid pan, for Cubis models with 10 mg & 100 mg readability (replaces original weigh pan)	1,915										✓		
69EA0040	Below balance weighing hook	42												✓
YTF02-115NA	Automatic Tablet Feeder (includes: tablet feeder, line cord, 25-25 pin cable, sample collection bowl & manual)	6,695							✓	✓	✓			
YTFDL01	Stainless Steel Draft Shield Door, left side, for Tablet Feeder (for DU draft shield only)	285							✓	✓	✓			
Safety Powder Hoods														
SPH32	32" Safety Powder Hood, includes filter (2 HEPA, 1 prefilter), 110 V	6,410	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SPH32B	32" Safety Powder Hood, plus bio waste bag port includes filter (2 HEPA, 1 prefilter), 120 V	6,885	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SPH48	48" Safety Powder Hood, includes filter (2 HEPA, 1 prefilter), 110 V	7,130	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SPH48B	48" Safety Powder Hood, plus bio waste bag port includes filter (2 HEPA, 1 prefilter), 120 V	7,610	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6009.1	Pre-filter, pack of 12 for SPH32 & SPH32B	315	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6010.1	Pre-filter, pack of 12 for SPH48 & SPH48B	442	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6011.1	HEPA Filter for SPH32 & SPH32B	442	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6012.1	HEPA Filter for SPH48 & SPH48B	760	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6013.1	32" wide Cart/Trolley with 4" wheels for SPH32	625	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6014.1	48" wide Cart/Trolley with 4" wheels for SPH48 & SPH48B	815	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6015.1	32" wide Stand with leveling feet for SPH32	705	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6016.1	48" wide Stand with leveling feet for SPH48 & SPH48B	855	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YACABPT*	Waste chute/bio-bag port for opposite side	480	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YACADBB48*	Dark blue base option, for 48" wide units	580	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YACADBB32*	Dark blue polypropylene base option for 32'' wide units	470	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

*Not an after-market option. Must be ordered with the hood.

Item	Item Description	US List Price ($)	Ultra Micro, 2.7S	Micro, 6.6S	Micro, 3.6P	High Cap Micro, ME36S	High Cap Micro, CPA26P	5-place Semi-Micro, CPA225D	5-place Semi-Micro, Cubis®	4-place Analytical	3-place Precision	2- & 1-place Precision	2-place Precsion, 5202S	High Cap Precision
Anti-Vibration Solutions														
U1-21201315	Granite Platform (13" × 15"), with vibration isolators *	610	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	
U1-24201621	Granite Platform (16" × 21"), with vibration isolators **	1,155				✓		✓	✓	✓	✓	✓	✓	✓
YWT03	Balance table, made from synthetic stone	1,595	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Weighing Accessories														
YDH01MS	Display holder for Cubis Precision models; for raising the MSE, MSU & MSA displays	445									✓			
YDH02MS	Display holder for Cubis Precision High-Capacity models for raising MSE, MSU & MSA displays	480												✓
U1-6565-250	Weighing Boats, aluminum (4.5 mg) 0.5" × 0.2" × 0.1" / qty; 250	120	✓	✓	✓	✓	✓							
U1-LD2	Locking Device, anti-theft	75	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LC1	Lock down cable & padlock	21	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
YTC01	T-Connector cable (fits RS-232)	305	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Display/Dust Covers														
6960MS01	Cubis Display Protection Cover, for MSA|MSU	107	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓
6960MS05	Cubis Display Protection Cover, for MSE	77	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓
6960MS02	In-Use Dust Cover for Cubis Precision (pan size: 206 × 206 mm only)	107									✓			
6960MS03	Overnight Dust Cover, for Cubis (DU|DA|DI draft shield only)	56							✓	✓	✓		✓	
6960MS04	Overnight Dust Cover, for Cubis (DE draft shield only)	73										✓	✓	

* Applicable for all MSE models, all Cubis ultra-micro|micro models, CPA26P & CPA225D

** Applicable for ME36S and all MSA|MSU Cubis models (except ultra-micro|micro)

✓ Applicable

Cal–Paks™

Catalog No.	Item Description	US List Price ($)	2.7S	6.6S	3.6P	ME36S	CPA26P	CPA225D	225S/2225P	125P	524S/524P	324S/324P	224S	124S	5203S/5203P	3203S	2203S	2203P	1203S	623S/623P	323S	14202S/14202P	10202S	8202S	6202S/6202P	5202S	4202S	2202S	1202S	1201S	8201S	5201S
WCP250AC0C	2 g, 200 mg, and 1 mg ASTM CL 0 Weights	330	✓		✓+																											
WCP251AC0C	5 g, 500 mg, and 1 mg ASTM CL 0 Weights	355		✓																												
WCP270AC1C	20 g, 2 g, and 20 mg ASTM CL 1 Weights	305				✓+	✓																									
WCP254AC1C	100 g, 10 g, and 20 mg ASTM CL 1 Weights	365								✓																						
WCP255AC1C	100 g,10 g, and 200 mg ASTM CL 1 Weights	365												✓																		
WCP281AC1C	200g, 20g, and 20mg ASTM CL 1 Weights	377							✓																							
WCP257AC1C	200 g, 20 g, and 200 mg ASTM CL 1 Weights	385						✓				✓+	✓																			
WCP258AC1C	200 g, 20 g, and 2 g ASTM CL 1 Weights	405																		✓												
WCP260AC1C	500 g, 50 g, and 200 mg ASTM CL 1 Weights	510									✓																					
WCP261AC1C	500 g, 50 g, and 2 g ASTM CL 1 Weights	530																	✓													
WCP262AC1C	1 kg, 100 g, and 2 g ASTM CL 1 Weights	675																✓	✓													
WCP263AC1C	1 kg, 100 g, and 20 g ASTM CL 1 Weights	695																											✓			
WCP264AC1C	2 kg, 200 g, and 2 g ASTM CL 1 Weights	985														✓	✓															
WCP265AC1C	2 kg, 200 g, and 20 g ASTM CL 1 Weights	1,005																									✓	✓				
WCP226AC1C	5 kg, 500 g and 2 g ASTM CL 1 Weights	1,250													✓																	
WCP267AC1C	5 kg, 500 g, and 20 g ASTM CL 1 Weights	1,270																				✓+	✓+	✓	✓	✓				✓+	✓	✓

✓ Applicable   ✓+ custom weight set required, please contact Sartorius for more information

Manual Mass Comparators
Your Full-range Mass Standards Laboratory

The new manual Cubis® MCM Mass Comparators are the first devices on the market that unite metrological weighing competence with an integrated control of workflows in line with the recommendations of OIML and ASTM. The workflow is ergonomically optimized giving the user a more relaxed working atmosphere, which minimizes the error rate during operation.

Features & Benefits

Incorporated Workflow Control. Provides user-guided workflows with step-by-step instructions to perform mass calculation, which reduces operator error and increases the accuracy of the results.

Climate Sensor. Integrated into the draft shield logs temperature, humidity and air pressure for calculating air buoyancy correction at the site of measurement.

Fast Methodology. Delivers fast-run method cycles (ABA, ABBA or AB1...BnA) for determining the conventional value of mass (also referred to as conventional mass and its combined standard uncertainty).

Color Touchscreen. Features a Cubis® MSA display and control unit with color touchscreen for fast and simple configuration of parameters and workflows.

Automatic Uncertainty Calculation. The measurement uncertainty is determined in full accordance with OIML and ASTM recommendations. No external software or a climate measuring station is required.

Off-Center Load Compensation. Significantly reduces measurement errors when the load is off-center. Therefore, no automatic centering is usually necessary and the loading is much easier.

Leveling Status is Constantly Monitored. Automatically detects when the balance is skewed and provide graphic support during leveling. On the models MCM2004, MCM5004 and MCM5003, automatic motorized leveling is also possible.

Diverse Communication Possibilities. Data interfaces, like USB, RS232 and Ethernet enable nearly all forms of bidirectional communication. Parameter and data can be stored on an SD card then transferred to a PC or other MCM.

Specifications & Pricing

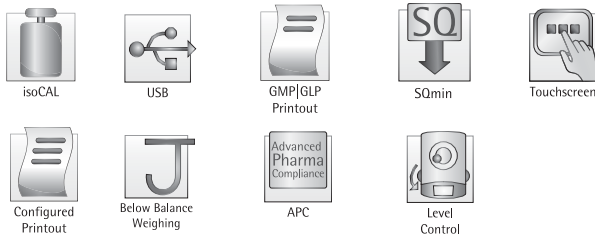| Model	Capacity	Readability	Repeatability*	Linearity	Weighing/ Tare Range	Pan Size (mm/in.)	US List Price ($)
MCM6.7	6.1 g	0.1 µg	0.15 µg	1 µg	6.1 g	16/0.6 Ø	on request
MCM36	31 g	1 µg	1 µg	6 µg	31 g	30/1.2 Ø	on request
MCM66	61 g	1 µg	1 µg	8 µg	61 g	30/1.2 Ø	on request
MCM106	111 g	1 µg	1 µg	8 µg	61 g	50/1.97 Ø	on request
MCM605	610 g	0.01 mg	10 µg	100 µg	610 g	90/3.5 Ø	on request
MCM1005	1,110 g	0.01 mg	15 µg	100 µg │ 600 g	610 g	90/3.5 Ø	on request
MCM1004	1,110 g	0.1 mg	0.05 mg	0.1 mg │ 600 g	610 g	90/3.5 Ø	on request
MCM2004	2,500 g	0.1 mg	0.05 mg	1 mg	2,500 g	136 x 136 / 5.4 x 5.4	on request
MCM5004	5,100 g	0.1 mg	0.3 mg	2 mg	5,100 g	136 x 136 / 5.4 x 5.4	on request
MCM5003	5,100 g	1 mg	0.5 mg	3 mg	5,100 g	136 x 136 / 5.4 x 5.4	on request
MCM10K3	11 kg	1 mg	0.8 mg	6 mg	11 kg	200 x 200 / 7.9 x 7.9	on request
MCM40K3	41 kg	1 mg	2 mg	20 mg	41 kg	400 x 300 / 15.7 x 11.8	on request
MCM60K3	64 kg	2 mg	4 mg	40 mg	64 kg	400 x 300/ 15.7 x 11.8	on request
MCM60K2	64 kg	10 mg	6 mg	50 mg	64 kg	400 x 300/ 15.7 x 11.8	on request

*Repeatability is the standard deviation "s"; it is calculated from 5 ABA cycles, after eliminating drift; based on optimal conditions: automatic measurement without operator influence measured in a laboratory under E1 conditions, on a decoupled weighing stone, no drafts from above.

Secura® Balances

Reduce your risk with integrated and intelligent protection system.

Secura® gives you the security and peace of mind of knowing that you have done everything right. Besides providing highly accurate weighing results and operating convenience, Secura® also features built-in protection systems for complete reliability and regulatory compliance the safe and secure way. Real-time guidance prompts for leveling, automatic internal adjustment and 100% traceable, clear documentation with sample and batch identifiers make your lab work more efficient.

Features

isoCAL USB GMP|GLP Printout SQmin Touchscreen

Configured Printout Below Balance Weighing APC Level Control

– Color touchscreen with intuitive operation
– 11 integrated application programs
– Award winning interface & design
– Internal automatic adjustment (isoCAL)
– Audit Trail Light
– PC-Direct data transfer
– Alphanumeric sample and batch identifiers
– GLP/GMP compliant printouts (with YDP30 printer)
– All models equipped with monolithic weight cell
– Exclusive opto-electronic level control

Applications

Weighing Density Percentage Checkweighing

Peak Hold Counting Unstable Conditions Mixing

Components Statistics Conversions

Benefits

Reduce Your Risk to produce wrong results by integrated protection systems – whenever an accuracy problem is detected data transfer to PC or printer is blocked.

Avoid Errors Caused by an Unleveled Balance with real time leveling support – an optoelectronic sensor continuously checks if balance is correctly leveled. You will be immediately alerted to a pending risk.

Safe Weighing with SQmin, for minimum sample weighing and monitoring according to USP requirements.

Always Highest Possible Accuracy by fully automatic internal temperature- and time controlled adjustment function (isoCAL).

Calibration and Adjustment History within the balance thanks to Audit Trail Light.

Prevent Accidental Changes by password protection set-up in the menu.

Easy Cleaning with chemically resistant housing and easily removable pan, glass door and draft shield.

Laminar Flow Weighing Environment is improved and simplified with our exclusive Level Control and uniquely designed and tested draft ring* for 0.1 & 0.01 mg weighing.

Traceable Documentation by sample and batch identifiers allows users to define product for easy reference.

*Draft ring is included with Analytical (0.1 mg) balances only.
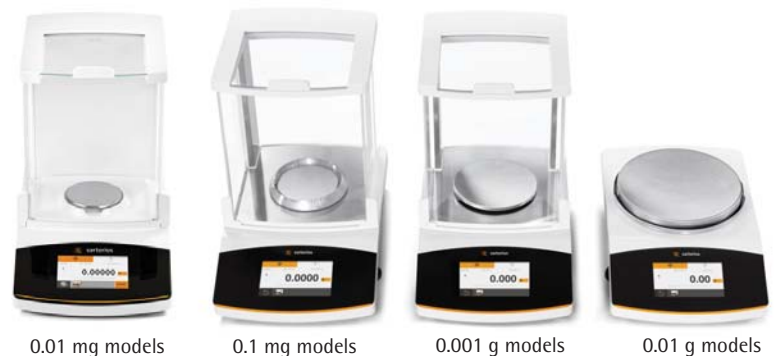
0.01 mg models   0.1 mg models   0.001 g models   0.01 g models

Specifications & Pricing

Model	Capacity (g)	Readability (g)	Linearity (± g)	Pan Size Ø (mm|in.)	Calibration Type	Wt. (g)	Shipping Wt. (lbs)	US List Price ($)
SECURA125-1S	60 | 120	0.01 | 0.01 mg	0.02 | 0.04 mg	80 | 3.1	isoCAL	100	24	5,900
SECURA225D-1S	60 | 120 | 220	0.01 | 0.01 | 0.1 mg	0.02 | 0.04 | 0.07 mg	80 | 3.1	isoCAL	200	24	6,200
SECURA124-1S	120	0.0001	0.0002	90 | 3.5	isoCAL	100	16.3	3,600
SECURA224-1S	220	0.0001	0.0002	90 | 3.5	isoCAL	200	16.3	3,995
SECURA324-1S	320	0.0001	0.0003	90 | 3.5	isoCAL	200	16.3	4,700
SECURA213-1S	210	0.001	0.002	120 | 4.75	isoCAL	200	16.3	2,200
SECURA313-1S	310	0.001	0.002	120 | 4.75	isoCAL	200	16.3	2,400
SECURA513-1S	510	0.001	0.002	120 | 4.75	isoCAL	500	16.3	3,000
SECURA613-1S	610	0.001	0.002	120 | 4.75	isoCAL	500	16.3	3,200
SECURA612-1S	610	0.01	0.02	180 | 7	isoCAL	500	16.3	1,895
SECURA1102-1S	1,100	0.01	0.02	180 | 7	isoCAL	1,000	15	2,100
SECURA2102-1S	2,100	0.01	0.02	180 | 7	isoCAL	2,000	15	2,500
SECURA3102-1S	3,100	0.01	0.02	180 | 7	isoCAL	2,000	15	2,700
SECURA5102-1S	5,100	0.01	0.02	180 | 7	isoCAL	5,000	15	3,100
SECURA6102-1S	6,100	0.01	0.02	180 | 7	isoCAL	5,000	15	3,300

Scope of delivery for all Secura® Balances include: Universal power adapter (100-240V~), In-use cover, Application guide, Draft shield & Dust cover for 0.01 mg, 0.1 mg and 1 mg balances.

Accessories

Item	Description	US List Price ($)
YDP30	Premium GLP Lab Printer	1,245
69Y03285	Standard Paper and Ink Ribbon Set	85
69Y03286	Self Adhesive Paper and Ink Ribbon Set	92
YDP40	Standard Thermal Lab Printer	795
69Y03287	Standard Paper for YDP30 and YDP40, 5 rolls	50
69Y03288	Self Adhesive thermal paper	78
YRB11Z	External Rechargeable Battery Pack	510
YCC04-D09	Data cable mini USB | USB A	46
YCC03-D09	Data cable mini USB | RS232 9-pin	46
YDK03	Density kit for 0.0001 g | 0.001 g balances	755
YDK04	Density kit for 0.01 g balances	655
YDK05	Density kit for 0.01 mg balances	on request
YFW01SQP	Filter weighing pan for 0.01 mg Balances	150
YWP01SQP	Weighing pan 90 mm for 0.01 mg balances	200
YSP01SQP	Weighing pan 80 mm, slitted, for 0.01 mg balance	200
YDS02SQP	Draft shield for 0.001 g balances	250
6960MA03	In-use cover for 0.01 mg balances	on request
6960SE01	In-use cover for 0.0001 g | 0.001 g balances	52
6960SE02	In-use cover for 0.01 g balances	52
Extended Warranty, Installation and IQ/OQ (for more info & service options, see page 164)		
84WAL03	12-month Semi-micro balance warranty	244
84ICL03	Semi-micro balance installation 0.0001 g	212
84WAL02	12-month analytical balance warranty	244
84ICL02	Analytical balance installation 0.0001 g	212
84WAL01	12-month precision balance warranty	244
84ICL01	Precision balance installation ≥ 0.001 g	212
For recommended weights, weight sets & Cal-Paks™ please refer to pages 40–43		

YDP30 Premium GLP Lab Printer

YDS02SQP Round Glass Draft Shield

Installation and IQ/OQ pricing is only valid for the continental United States. Travel and Expensec are not included in the prices listed.

Quintix® Balances

Make your routine lab work easy with our revolutionary user interface.

The entirely new touchscreen user interface with built-in application programs and a number of features such as fully automatic internal adjustment, direct data transfer and ergonomic style makes your workflow much more efficient. Therefore Quintix® sets new benchmarks in every aspect for standard lab balances.

Features

| isoCAL | USB | GMP\|GLP Printout | Touchscreen | Below Balance Weighing |

Configured Printout

– Color touchscreen with intuitive operation
– Eleven integrated applications
– Internal calibration
– Supervisor lock
– Award winning design - easy operation & cleanability
– PC-Direct data transfer
– GLP/GMP compliant printers (with YDP30 printer)

Applications

| Weighing | Density | Percentage | Checkweighing |

| Peak Hold | Counting | Unstable Conditions | Mixing |

| Components | Statistics | Conversion |

Benefits

Intuitive Operation without reading a manual by an award winning user interface and high resolution color touchscreen.

Increase Efficiency in your daily lab routine with integrated application programs and intuitive user guidance.

Highest Accuracy and Convenience with fully automatic internal temperature - and time-controlled adjustment feature (isoCAL).

Easy and Convenient Data Transfer to your PC without the need of extra software by integrated PC-direct function.

Prevent Accidental Menu Changes with built-in Supervisor Lock.

0.01 mg models   0.1 mg models

0.001 g models   0.01 | 0.1 | 1.0 g models

Specifications & Pricing

Model	Capacity (g)	Readability (g)	Linearity (± g)	Pan Size Ø (mm/in.)	Calibration Type	Wt. (g)	Shipping Wt. (lbs)	US List Price ($)
QUINTIX65-1S	40 | 60	0.01 | 0.01 mg	0.02 |0.04 mg	80|3.1	isoCAL	50	24	4,900
QUINTIX125D-1S	40 | 60 | 120	0.01 | 0.01 | 0.1 mg	0.02 | 0.04 | 0.07 mg	80|3.1	isoCAL	100	24	5,100
QUINTIX64-1S	60	0.0001	0.0002	90|3.5	isoCAL	50	16.3	2,780
QUINTIX124-1S	120	0.0001	0.0002	90|3.5	isoCAL	100	16.3	3,090
QUINTIX224-1S	220	0.0001	0.0002	90|3.5	isoCAL	200	16.3	3,500
QUINTIX213-1S	210	0.001	0.002	120|4.75	isoCAL	200	16.3	1,830
QUINTIX313-1S	310	0.001	0.002	120|4.75	isoCAL	200	16.3	1,955
QUINTIX513-1S	510	0.001	0.002	120|4.75	isoCAL	500	16.3	2,650
QUINTIX613-1S	610	0.001	0.002	120|4.75	isoCAL	500	13.7	2,780
QUINTIX412-1S	410	0.01	0.02	180|7	isoCAL	200	13.7	1,340
QUINTIX612-1S	610	0.01	0.02	180|7	isoCAL	500	13.7	1,545
QUINTIX1102-1S	1,100	0.01	0.02	180|7	isoCAL	1,000	13.7	1,750
QUINTIX2102-1S	2,100	0.01	0.02	180|7	isoCAL	2,000	13.7	1,955
QUINTIX3102-1S	3,100	0.01	0.02	180|7	isoCAL	2,000	15	2,165
QUINTIX5102-1S	5,100	0.01	0.02	180|7	isoCAL	5,000	15	2,680
QUINTIX6102-1S	6,100	0.01	0.02	180|7	isoCAL	5,000	15	3,140
QUINTIX2101-1S	2,100	0.1	0.2	180|7	isoCAL	2,000	13.7	1,340
QUINTIX5101-1S	5,100	0.1	0.2	180|7	isoCAL	5,000	13.7	1,545
QUINTIX6101-1S	6,100	0.1	0.2	180|7	isoCAL	5,000	13.7	1,855
QUINTIX5100-1S	5,100	1.0	1.0	180|7	isoCAL	5,000	13.7	1,235
QUINTIX6100-1S	6,100	1.0	1.0	180|7	isoCAL	5,000	13.7	1,340

Scope of delivery for all Quintix® Balances include: Universal power adapter (100-240V~), In-use cover, Application guide, Dust cover for 0.01 mg, 0.1 mg and 1 mg balances.

Accessories

Item	Description	US List Price ($)
YDP30	Premium GLP Lab Printer	1,245
69Y03285	Standard Paper and Ink Ribbon Set	85
69Y03286	Self Adhesive Paper and Ink Ribbon Set	92
YDP40	Standard Thermal Lab Printer	795
69Y03287	Standard Paper for YDP30 and YDP40, 5 rolls	50
69Y03288	Self Adhesive thermal paper	78
YRB11Z	External Rechargeable Battery Pack	510
YCC04-D09	Data cable mini USB|USB A	46
YCC03-D09	Data cable mini USB|RS232 9-pin	46
YDK03	Density kit for 0.0001 g | 0.001 g balances	755
YDK04	Density kit for 0.01 g balances	655
YDK05	Density kit for 0.01 mg balances	on request
YFW01SQP	Filter weighing pan for 0.01 mg Balances	150
YWP01SQP	Weighing pan 90 mm for 0.01 mg balances	200
YSP01SQP	Weighing pan 80 mm, slitted, for 0.01 mg balance	200
YDS02SQP	Draft shield for 0.001 g balance	250
6960MA03	In-use cover for 0.01 mg balances	on request
6960SE01	In-use cover for 0.0001 g|0.001 g balances	52
6960SE02	In-use cover for 0.01 g balances	52
Extended Warranty, Installation and IQ/OQ (for more info & service options, see page 164)		
84WAL03	12-month Semi-micro balance warranty	244
84ICL03	Semi-micro balance installation 0.0001 g	212
84WAL02	12-month analytical balance warranty	244
84ICL02	Analytical balance installation 0.0001 g	212
84WAL01	12-month precision balance warranty	244
84ICL01	Precision balance installation ≥ 0.001 g	212

YDP40 Standard Lab Printer

YDK03 Density Kit

Installation and IQ/OQ pricing is only valid for the continental United States. Travel and Expensec are not included in the prices listed.

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Practum® Balances

Get the best value for your money, without compromising precision and reliability.

You can't go wrong with the new Practum®. Developed and designed in Germany, Sartorius provides consistent readings and excellent repeatability. Practum® has everything you need for standard weighing.

Features

External CAL   USB   Configured Printout   Below Balance Weighing   Touchscreen

– Touchscreen with intuitive operation
– Seven integrated applications
– Supervisor lock
– PC-Direct data transfer
– New! All balances are supplied with external calibration weight

Applications

Weighing   Density   Percentage   Checkweighing

Peak Hold   Counting   Unstable Conditions

Benefits

Rely on Consistent Readings and excellent repeatability with Sartorius Quality & the most advanced Technology, developed by German engineers.

High Reliability and operational safety by mechanical "Overload Protection" to prevent the weighing system from damage.

Durable and Sturdy draft shield will stand up to daily use, even "abuse" by inexperienced operators. Moreover, it can be completely disassembled to conveniently clean the glass parts in a dishwasher.

Touchscreen & intuitive user interface allow for comfortable, easy and friendly operation.

Prevent Unintentional Changes of setup settings with supervisor lock.

Upfront spirit level & two leveling feet for simple leveling and balance set-up.

Reliable & Confident weighing results confirmed with the included external calibration weight with factory certificate.

0.0001 g models   0.001 g models   0.01 | 0.1 | 1.0 g models

Specifications & Pricing

Model	Capacity (g)	Readability (g)	Linearity (± g)	Pan Size Ø (mm|in.)	Calibration Type	Wt. (g)*	Shipping Wt. (lbs)	US List Price ($)
PRACTUM64-1S	60	0.0001	0.0002	90|3.5	External	50	16	1,900
PRACTUM124-1S	120	0.0001	0.0002	90|3.5	External	100	16	2,100
PRACTUM224-1S	220	0.0001	0.0002	90|3.5	External	200	16	2,500
PRACTUM213-1S	210	0.001	0.002	120|4.75	External	200	16	1,300
PRACTUM313-1S	310	0.001	0.002	120|4.75	External	200	16	1,500
PRACTUM513-1S	510	0.001	0.002	120|4.75	External	500	16	1,800
PRACTUM412-1S	410	0.01	0.03	180|7	External	200	13	895
PRACTUM612-1S	610	0.01	0.03	180|7	External	500	14	995
PRACTUM1102-1S	1,100	0.01	0.03	180|7	External	1,000	15	1,100
PRACTUM2102-1S	2,100	0.01	0.03	180|7	External	2,000	17	1,295
PRACTUM3102-1S	3,100	0.01	0.03	180|7	External	2,000	17	1,495
PRACTUM2101-1S	2,100	0.1	0.2	180|7	External	2,000	17	995
PRACTUM5101-1S	5,100	0.1	0.2	180|7	External	2,000	17	1,095
PRACTUM6101-1S	6,100	0.1	0.2	180|7	External	2,000	17	1,195
PRACTUM5100-1S	5,100	1.0	1.0	180|7	External	2,000	17	900
PRACTUM6100-1S	6,100	1.0	1.0	180|7	External	2,000	17	995

Scope of delivery for all Practum® Balances include: Universal power adapter (100–240V~), In-use cover, Application guide, Dust cover for 0.0001 g and 0.001 g balances *External calibration weight with factory DAkkS certificate.

Accessories

Item	Description	US List Price ($)
YDP40	Standard Thermal Lab Printer	795
69Y03287	Thermal Paper for YDP30 and YDP40, 5 rolls	50
YRB11Z	External Rechargeable Battery Pack	510
YCC04-D09	Data cable mini USB|USB A	46
YCC03-D09	Data cable mini USB|RS232 9-pin	46
YDK03	Density kit for 0.0001 g | 0.001 g balances	755
YDK04	Density kit for 0.01 g balances	665
YDS01SQP	Draft shield for 0.01 g|0.1 g|1 g balances	355
YDS02SQP	Draft shield for 0.001 g balances	250
6960SE01	In-use cover for 0.0001 g | 0.001 g balances	52
6960SE02	In-use cover for 0.01 g balances	52
6960SE03	Dust cover for balances with analytical draft shield	47
Extended Warranty, Installation and IQ/OQ (for more info & service options, see page 164)		
84WAL02	12-month analytical balance warranty	244
84ICL02	Analytical balance Installation 0.0001g	212
84WAL01	12-month precision balance warranty	244
84ICL01	Precision balance installation ≥ 0.001g	212
For recommended weights, weight sets & Cal-Paks™ please refer to pages 40–43		

YDP40 Standard Lab Printer

YRB11Z External Battery Pack

Installation and IQ/OQ pricing is only valid for the continental United States. Travel and Expensec are not included in the prices listed.

Entris® Balances

Receive the reliability and quality of a Sartorius balance, but just pay for the features you really need.

The new Entris® has been specially designed to achieve effective and reliable weighing results in your daily work. The easy and clearly structured user interface, with its logical key assignment andthe excellent readability, are ideal conditions for safe operation.

Features

LCD Backlit

RS232 Standard

Below Balance Weighing

External CAL

Applications

Weighing

Density

Percentage

Counting

Unstable Conditions

Conversion

Benefits

Excellent readability in all ambient conditions due to the white backlit high-contrast LCD display, easy navigation with positive click-action function keys, multilanguage operation (English, Spanish, French) and front level indicator for easy set-up and simple operation.

Basic Applications. Entris® supports you in your daily work with integrated basic applications: animal weighing, density determination, counting, conversion or percentage.

Housing Design. Aluminum Die-cast base with coated ABS bottom and top housing for use in multiple applications & environments.

High Performance Advanced Monolithic weight cell & Strain Gauge Technology with patented A/D converter & H8 microprocessor make the Entris series the best price-performance balance on the market.

Ambient Condition Settings. Four menu filter levels allows for optimal performance and set-up in most lab environments.

Models with pan size 90 mm|3.5 in   Models with pan size 115 mm|4.5 in   Models with pan size 180 mm|7.1 in   Models with pan size 150 mm|5.9 in

Specifications & Pricing

Model	Capacity (g)	Readability (g)	Linearity (± g)	Pan Size Ø (mm/in.)	Calibration Type	Wt. (g)	Shipping Wt. (lbs)	US List Price ($)
ENTRIS64-1S	60	0.0001	0.0002	90|3.5	External	50	11.3	1,575
ENTRIS124-1S	120	0.0001	0.0002	90|3.5	External	100	11.3	1,890
ENTRIS224-1S	220	0.0001	0.0002	90|3.5	External	200	11.3	2,100
ENTRIS153-1S	150	0.001	0.002	115|4.5	External	100	10.9	945
ENTRIS323-1S	320	0.001	0.002	115|4.5	External	200	12.2	1,105
ENTRIS423-1S	420	0.001	0.002	115|4.5	External	200	12.2	1,315
ENTRIS623-1S	620	0.001	0.002	115|4.5	External	500	12.2	1,525
ENTRIS822-1S	820	0.01	0.03	150|5.9	External	500	9.4	840
ENTRIS2202-1S	2,200	0.01	0.03	180|7.1*	External	2,000	11.7	1,000
ENTRIS3202-1S	3,200	0.01	0.03	180|7.1*	External	2,000	11.7	1,210
ENTRIS4202-1S	4,200	0.01	0.03	180|7.1*	External	2,000	11.7	1,365
ENTRIS6202-1S	6,200	0.01	0.03	180|7.1*	External	5,000	11.7	1,575
ENTRIS2201-1S	2,200	0.1	0.3	180|7.1*	External	2,000	11.3	895
ENTRIS5201-1S	5,200	0.1	0.3	180|7.1*	External	5,000	11.3	1,050
ENTRIS8201-1S	8,200	0.1	0.3	180|7.1*	External	5,000	11.3	1,155

Scope of delivery for all Entris® Balances include: Universal power adapter (100-240V~), Draft shield for 0.0001 g balances, Round Draft shield for 0.001 g balances, Installation & operating instructions.

* square pan

Accessories

Item	Description	US List Price ($)
YDP20-0CE	Data Printer	995
6906937	Paper Rolls, 5 units, each with 40 m	42
6906918	Ink Ribbon Cassette	47
YRB11Z	External Rechargeable Battery Pack	510
YCC05-001M2	Cable, 25-pin to 9-pin RS232, 5 ft.	90
YCC01-USBM2	Data Cable RS232|USB	130
YDK01LP	Density Kit for 0.0001 g balances	890
YRD03Z	Second display, backlit LCD, character height: 15 mm	450
6960ED01	In-use cover for models with a rectangular weighing pan	72
6960ED02	In-use cover for models with a round weighing pan	79
6960BP08	Overnight dustcover for 0.1mg models	51
YSW05	WinWedge Software, for RS232, with YCC01-USBM2 & YCC05-001M2 cables	440

YDP20-OCE Data Printer

Additional Weights available in multiple Classes and approvals. Please call Sartorius at 800-635-2906 for more information.

Analytical Precision Weights – ASTM Class 1

Model	Class 1/No Cert.	Nom. Value	US List Price ($)	Class 1 W/ TraceCert.	Nom. Value	US List Price ($)
ENTRIS64-1S	WE050GAC1N	50 g cyl	70	WE050GAC1T	50 g cyl	102
ENTRIS124-1S	WE100GAC1N	100 g cyl	77	WE100GAC1T	100 g cyl	106
ENTRIS224-1S	WE200GAC1N	200 g cyl	92	WE200GAC1T	200 g cyl	155
Model	Class 2/No Cert.	Nom. Value	US List Price ($)	Class 2 W/TraceCert.	Nom. Value	US List Price ($)
ENTRIS153-1S	WE100GAC2N	100 g cyl	75	WE100GAC2T	100 g cyl	102
ENTRIS323-1S	WE200GAC2N	200 g cyl	88	WE200GAC2T	200 g cyl	135
ENTRIS423-1S	WE200GAC2N	200 g cyl	88	WE200GAC2T	200 g cyl	135
ENTRIS623-1S	WE500GAC2N	500 g cyl	115	WE500GAC2T	500 g cyl	168
ENTRIS822-1S	WE500GAC2N	500 g cyl	115	WE500GAC2T	500 g cyl	168
ENTRIS2202-1S	WE2KGAC2N	2000 g cyl	167	WE2KGAC2T	2000 g cyl	231
ENTRIS3202-1S	WE2KGAC2N	2000 g cyl	167	WE2KGAC2T	2000 g cyl	231
ENTRIS4202-1S	WE2KGAC2N	2000 g cyl	167	WE2KGAC2T	2000 g cyl	231
ENTRIS6202-1S	WE5KGAC2N	5000 g cyl	339	WE5KGAC2T	5000 g cyl	427

Cal-Pak™ Weight Sets

sartorius by TROEMNER

ANSI/ASTM UltraClass & Class 1 with NVLAP* Certification

Features & Benefits

– Contains three (3) high quality, precision weights
– Supplied in a rugged polycarbonate case with each individual weight in its own high quality polycarbonate case. Accessories for proper handling and care of weights are also included
– Components and carrying case are linked through the use of a unique serial number. You can trace your individual weights to the appropriate NVLAP* Certificate and master carrying case
– Can be used with all balance manufacturer's makes and models
– The weights supplied are the balance manufacturer's recommended calibration weight
– USB Flash Drive provides a paperless system for certificates to be easily accessed and maintained over time

Please Contact Sartorius Customer Service at 1-800-635-2906, extension 8272, or email WT.sales@sartorius.com for information on Cal-Pak offerings and weight recalibration service.

Item	Set Includes	US List Price ($)
ASTM UltraClass		
WCP250AC0C	One of each: 2 g, 200 mg, and 1mg	330
WCP251AC0C	One of each: 5 g, 500 mg, and 1mg	355
ASTM Class 1		
WCP270AC1C	One of each: 20 g, 2 g, and 20 mg	305
WCP271AC1C	One of each: 20 g, 2 g, and 200 mg	330
WCP252AC1C	One of each: 50 g, 5 g, and 200 mg	305
WCP253AC1C	One of each: 50 g, 5 g, and 2 g	330
WCP254AC1C	One of each: 100 g, 10 g, and 20 mg	365
WCP255AC1C	One of each: 100 g, 10 g, and 200 mg	365
WCP256AC1C	One of each: 100 g, 10 g, and 2 g	385
WCP281AC1C	One of each: 200 g, 20 g, 20 mg	377
WCP257AC1C	One of each: 200 g, 20 g, and 200 mg	385
WCP258AC1C	One of each: 200 g, 20 g, and 2 g	405
WCP259AC1C	One of each: 500 g, 50 g and 20 mg	510
WCP260AC1C	One of each: 500 g, 50 g and 200 mg	510
WCP261AC1C	One of each: 500 g, 50 g, and 2 g	530
WCP262AC1C	One of each: 1 kg, 100 g, and 2 g	675
WCP263AC1C	One of each: 1 kg, 100 g, and 20 g	695
WCP264AC1C	One of each: 2 kg, 200 g, and 2 g	985
WCP265AC1C	One of each: 2 kg, 200 g, and 20 g	1,005
WCP226AC1C	One of each: 5 kg, 500 g and 2 g	1,250
WCP267AC1C	One of each: 5 kg, 500 g and 20 g	1,270

Accessories

Item	Description of Upgrade	US List Price ($)
YAW31	Forceps with silicone-coated tips: 115 mm for 1 mg to 5 g	32
YAW32	Forceps with silicone-coated tips: 160 mm for 1 g to 200 g	42
YAW33	Forceps with silicone-coated tips: 230 mm for 1 g to 1 kg	70

Item	Description of Upgrade	US List Price ($)
YAW11	Brush: Small, 100 mm	27
YAW12	Brush: Medium, 115 mm	48
YAW13	Brush: Large, 150 mm	60
YAW14	Brush: Extra-Large, 250 mm	42

Sartorius by Troemner
Analytical Precision Weight Sets

ANSI/ASTM E617 – ASTM Class 1

Item	No Certificate	Pieces	US List Price ($)	Item	w/Certificate	Pieces	US List Price ($)	Item	w/Certificate	Pieces	US List Price ($)
Class 1 No Certificate				**Class1 w/Traceable Certificate**				**Class1 w/NVLAP* Certificate**			
WS381GAC1N	20 g-1 mg	19	1,035	WS381GAC1T	20 g-1 mg	19	1,460	WS381GAC1C	20 g-1 mg	19	1,920
WS371GAC1N	20 g-5 mg	16	890	WS371GAC1T	20 g-5 mg	16	1,175	WS371GAC1C	20 g-5 mg	16	1,475
WS361GAC1N	20 g-10 mg	15	855	WS361GAC1T	20 g-10 mg	15	1,240	WS361GAC1C	20 g-10 mg	15	1,545
WS351GAC1N	20 g-100 mg	11	720	WS351GAC1T	20 g-100 mg	11	915	WS351GAC1C	20 g-100 mg	11	1,210
WS341GAC1N	20 g-1 g	7	600	WS341GAC1T	20 g-1 g	7	745	WS341GAC1C	20 g-1 g	7	875
WS331GAC1N	50 g-1 mg	20	1,060	WS331GAC1T	50 g-1 mg	20	1,560	WS331GAC1C	50 g-1 mg	20	2,125
WS321GAC1N	50 g- 5 mg	17	955	WS321GAC1T	50 g- 5 mg	17	1,375	WS321GAC1C	50 g- 5 mg	17	1,890
WS311GAC1N	50 g-10 mg	16	895	WS311GAC1T	50 g-10 mg	16	1,295	WS311GAC1C	50 g-10 mg	16	1,820
WS301GAC1N	50 g-100 mg	12	775	WS301GAC1T	50 g-100 mg	12	1,080	WS301GAC1C	50 g-100 mg	12	1,460
WS291GAC1N	50 g-1 g	8	640	WS291GAC1T	50 g-1 g	8	910	WS291GAC1C	50 g-1 g	8	1,160
WS281GAC1N	100 g-1 mg	21	1,105	WS281GAC1T	100 g-1 mg	21	1,625	WS281GAC1C	100 g-1 mg	21	2,270
WS271GAC1N	100 g-5 mg	18	1,020	WS271GAC1T	100 g-5 mg	18	1,440	WS271GAC1C	100 g-5 mg	18	1,775
WS261GAC1N	100 g-10 mg	17	970	WS261GAC1T	100 g-10 mg	17	1,425	WS261GAC1C	100 g-10 mg	17	1,955
WS251GAC1N	100 g-100 mg	13	785	WS251GAC1T	100 g-100 mg	13	1,085	WS251GAC1C	100 g-100 mg	13	1,530
WS241GAC1N	100 g-1 g	9	665	WS241GAC1T	100 g-1 g	9	875	WS241GAC1C	100 g-1 g	9	1,210
WS231GAC1N	200 g-1 mg	22	1,160	WS231GAC1T	200 g-1 mg	22	1,835	WS231GAC1C	200 g-1 mg	2	2,415
WS221GAC1N	200 g-1 g	10	775	WS221GAC1T	200 g- g	10	1,060	WS221GAC1C	200 g-1 g	10	1,295
WS211GAC1N	(2) - 200 g-1mg	23	1,275	WS211GAC1T	(2) - 200g-1 mg	23	2,050	WS211GAC1C	(2) - 200 g-1mg	23	2,620
WS201GAC1N	(2) - 200 g-1 g	11	845	WS201GAC1T	(2) - 200g-1 g	11	1,275	WS201GAC1C	(2) - 200 g-1g	11	1,475
WS191GAC1N	500 g-1 mg	24	2,040	WS191GAC1T	500 g-1 mg	24	2,870	WS191GAC1C	500 g-1 mg	24	3,370
WS181GAC1N	500 g-1 g	12	1,595	WS181GAC1T	500 g-1 g	12	2,095	WS181GAC1C	500 g-1 g	12	2,395
WS171GAC1N	1 kg-1 mg	25	2,880	WS171GAC1T	1 kg-1 mg	25	3,645	WS171GAC1C	1 kg-1 mg	25	4,205
WS161GAC1N	1 kg-1 g	13	2,350	WS161GAC1T	1 kg-1 g	13	2,885	WS161GAC1C	1 kg-1 g	13	3,210
WS151GAC1N	2 kg-1 mg	26	3,700	WS151GAC1T	2 kg-1 mg	26	4,385	WS151GAC1C	2 kg-1 mg	26	4,970
WS141GAC1N	2 kg-1 g	14	3,130	WS141GAC1T	2 kg-1 g	14	3,625	WS141GAC1C	2 kg-1 g	14	3,975
WS131GAC1N	(2) - 2 kg-1 mg	27	4,125	WS131GAC1T	(2) - 2 kg-1 mg	27	5,420	WS131GAC1C	(2) - 2 kg-1mg	27	5,990
WS121GAC1N	(2) - 2kg-1 g	15	3,840	WS121GAC1T	(2) - 2kg-1 g	15	4,615	WS121GAC1C	(2) - 2kg-1 g	15	4,995
WS111GAC1N	5 kg-1 mg	28	5,265	WS111GAC1T	5 kg-1 mg	28	6,370	WS111GAC1C	5 kg-1 mg	28	7,030
WS101GAC1N	5 kg-1 g	16	4,805	WS101GAC1T	5 kg-1 g	16	5,640	WS101GAC1C	5 kg-1 g	16	6,035
WS091GAC1N	10 kg-1 mg	29	7,400	WS091GAC1T	10 kg-1 mg	29	8,420	WS091GAC1C	10 kg-1 mg	29	9,050
WS081GAC1N	10 kg-1 g	17	7,045	WS081GAC1T	10 kg-1 g	17	7,615	WS081GAC1C	10 kg-1 g	17	8,065

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Sartorius by Troemner
Analytical Precision Weight Sets

ANSI/ASTM E617 – ASTM Class 4

Item	Weight Range	# of Pieces	US List Price ($)
Class 4 No Certificate			
WS404GAC4N	500 mg- 1 mg	12	299
WS394GAC4N	500 mg- 10 mg	8	206
WS384GAC4N	20 g-1 mg	19	537
WS374GAC4N	20 g-5 mg	16	483
WS364GAC4N	20 g-10 mg	15	442
WS354GAC4N	20 g-100 mg	11	397
WS344GAC4N	20 g-1 g	7	334
WS334GAC4N	50 g-1 mg	20	567
WS324GAC4N	50 g- 5 mg	17	502
WS314GAC4N	50 g-10 mg	16	477
WS304GAC4N	50 g-100 mg	12	429
WS294GAC4N	50 g-1 g	8	365
WS284GAC4N	100 g-1 mg	21	535
WS274GAC4N	100 g-5 mg	18	537
WS264GAC4N	100 g-10 mg	17	502
WS254GAC4N	100 g-100 mg	13	434
WS244GAC4N	100 g-1 g	9	379
WS234GAC4N	200 g-1 mg	22	579
WS224GAC4N	200 g-1 g	10	405
WS214GAC4N	(2) - 200 g-1 mg	23	659
WS204GAC4N	(2) - 200 g-1 g	11	474
WS194GAC4N	500 g-1 mg	24	1,607
WS184GAC4N	500 g-1 g	12	1,247
WS174GAC4N	1 kg-1 mg	25	2,289
WS164GAC4N	1 kg-1 g	13	1,865
WS154GAC4N	2 kg-1 mg	26	2,888
WS144GAC4N	2 kg-1 g	14	2,477
WS134GAC4N	(2) - 2 kg-1 mg	27	3,527
WS124GAC4N	(2) - 2kg-1 g	15	2,995
WS114GAC4N	5 kg-1 mg	28	4,126
WS104GAC4N	5 kg-1 g	16	3,801
WS094GAC4N	10 kg-1 mg	29	5,816
WS084GAC4N	10 kg-1 g	17	5,516

Item	Weight Range	# of Pieces	US List Price ($)
Class 4 w/Traceable Certificate			
WS404GAC4T	500 mg- 1 mg	12	445
WS394GAC4T	500 mg- 10 mg	8	421
WS384GAC4T	20 g-1 mg	19	852
WS374GAC4T	20 g-5 mg	16	685
WS364GAC4T	20 g-10 mg	15	648
WS354GAC4T	20 g-100 mg	11	562
WS344GAC4T	20 g-1 g	7	442
WS334GAC4T	50 g-1 mg	20	893
WS324GAC4T	50 g- 5 mg	17	839
WS314GAC4T	50 g-10 mg	16	790
WS304GAC4T	50 g-100 mg	12	648
WS294GAC4T	50 g-1 g	8	516
WS284GAC4T	100 g-1 mg	21	909
WS274GAC4T	100 g-5 mg	18	846
WS264GAC4T	100 g-10 mg	17	775
WS254GAC4T	100 g-100 mg	13	632
WS244GAC4T	100 g-1 g	9	583
WS234GAC4T	200 g-1 mg	22	981
WS224GAC4T	200 g-1 g	10	648
WS214GAC4T	(2) - 200 g-1 mg	23	1,077
WS204GAC4T	(2) - 200 g-1 g	11	775
WS194GAC4T	500 g-1 mg	24	2,372
WS184GAC4T	500 g-1 g	12	1,737
WS174GAC4T	1 kg-1 mg	25	3,014
WS164GAC4T	1 kg-1 g	13	2,382
WS154GAC4T	2 kg-1 mg	26	3,622
WS144GAC4T	2 kg-1 g	14	3,014
WS134GAC4T	(2) - 2 kg-1 mg	27	4,484
WS124GAC4T	(2) - 2kg-1 g	15	3,853
WS114GAC4T	5 kg-1 mg	28	5,325
WS104GAC4T	5 kg-1 g	16	4,626
WS094GAC4T	10 kg-1 mg	29	6,937
WS084GAC4T	10 kg-1 g	17	6,306

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Sartorius by Troemner Analytical Precision Weights

ANSI/ASTM E617 – ASTM Class 1 & Class 4

Item	Nominal Value	US List Price ($)
Class 1 No Certificate		
WI001MAC1N	1 mg	71
WI002MAC1N	2 mg	71
WI005MAC1N	5 mg	71
WI010MAC1N	10 mg	71
WI020MAC1N	20 mg	71
WI050MAC1N	50 mg	71
WI100MAC1N	100 mg	71
WI200MAC1N	200 mg	71
WI500MAC1N	500 mg	71
WI001GAC1N	1 g	72
WI002GAC1N	2 g	72
WI005GAC1N	5 g	72
WE010GAC1N	10 g cyl	70
WE020GAC1N	20 g cyl	70
WE050GAC1N	50 g cyl	70
WE100GAC1N	100 g cyl	77
WE200GAC1N	200 g cyl	92
WE500GAC1N	500 g cyl	125
WE01KGAC1N	1000 g cyl	155
WE02KGAC1N	2 kg cyl	195
WE05KGAC1N	5 kg cyl	427

Item	Nominal Value	US List Price ($)
Class 1 w/Traceable Certificate		
WI001MAC1T	1 mg	85
WI002MAC1T	2 mg	85
WI005MAC1T	5 mg	85
WI010MAC1T	10 mg	85
WI020MAC1T	20 mg	85
WI050MAC1T	50 mg	85
WI100MAC1T	100 mg	85
WI200MAC1T	200 mg	85
WI500MAC1T	500 mg	85
WI001GAC1T	1 g	90
WI002GAC1T	2 g	90
WI005GAC1T	5 g	90
WE010GAC1T	10 g cyl	102
WE020GAC1T	20 g cyl	102
WE050GAC1T	50 g cyl	102
WE100GAC1T	100 g cyl	106
WE200GAC1T	200 g cyl	155
WE500GAC1T	500 g cyl	175
WE01KGAC1T	1000 g cyl	202
WE02KGAC1T	2 kg cyl	258
WE05KGAC1T	5 kg cyl	485

Item	Nominal Value	US List Price ($)
Class 1 w/NVLAP* Certificate		
WI001MAC1C	1 mg	117
WI002MAC1C	2 mg	117
WI005MAC1C	5 mg	117
WI010MAC1C	10 mg	117
WI020MAC1C	20 mg	117
WI050MAC1C	50 mg	117
WI100MAC1C	100 mg	117
WI200MAC1C	200 mg	117
WI500MAC1C	500 mg	117
WI001GAC1C	1 g	125
WI002GAC1C	2 g	125
WI005GAC1C	5 g	125
WE010GAC1C	10 g cyl	155
WE020GAC1C	20 g cyl	155
WE050GAC1C	50 g cyl	155
WE100GAC1C	100 g cyl	155
WE200GAC1C	200 g cyl	208
WE500GAC1C	500 g cyl	250
WE01KGAC1C	1000 g cyl	260
WE02KGAC1C	2 kg cyl	320
WE05KGAC1C	5 kg cyl	570

Item	Nominal Value	US List Price ($)
Class 4 No Certificate		
WI001MAC4N	1 mg	29
WI002MAC4N	2 mg	29
WI005MAC4N	5 mg	29
WI010MAC4N	10 mg	29
WI020MAC4N	20 mg	29
WI050MAC4N	50 mg	29
WI100MAC4N	100 mg	29
WI200MAC4N	200 mg	29
WI500MAC4N	500 mg	29
WI001GAC4N	1 g	44
WI002GAC4N	2 g	44
WI005GAC4N	5 g	44
WI010GAC4N	10 g	49
WI020GAC4N	20 g	53
WI050GAC4N	50 g	63
WI100GAC4N	100 g	76
WI200GAC4N	200 g	118
WI500GAC4N	500 g	189
WI001KAC4N	1 kg	405
WI002KAC4N	2 kg	634
WI005KAC4N	5 kg	993

Item	Nominal Value	US List Price ($)
Class 4 w/Traceable Cert.		
WI001MAC4T	1 mg	49
WI002MAC4T	2 mg	49
WI005MAC4T	5 mg	49
WI010MAC4T	10 mg	47
WI020MAC4T	20 mg	49
WI050MAC4T	50 mg	47
WI100MAC4T	100 mg	49
WI200MAC4T	200 mg	49
WI500MAC4T	500 mg	47
WI001GAC4T	1 g	55
WI002GAC4T	2 g	55
WI005GAC4T	5 g	55
WI010GAC4T	10 g	60
WI020GAC4T	20 g	69
WI050GAC4T	50 g	74
WI100GAC4T	100 g	89
WI200GAC4T	200 g	163
WI500GAC4T	500 g	243
WI001KAC4T	1 kg	468
WI002KAC4T	2 kg	775
WI005KAC4T	5 kg	1,106

Item Number	Nominal Value	US List Price ($)
Class 4 W/NVLAP* Cert.		
WI001MAC4C	1 mg	92
WI002MAC4C	2 mg	92
WI005MAC4C	5 mg	91
WI010MAC4C	10 mg	91
WI020MAC4C	20 mg	92
WI050MAC4C	50 mg	91
WI100MAC4C	100 mg	92
WI200MAC4C	200 mg	92
WI500MAC4C	500 mg	91
WI001GAC4C	1 g	108
WI002GAC4C	2 g	110
WI005GAC4C	5 g	113
WI010GAC4C	10 g	117
WI020GAC4C	20 g	121
WI050GAC4C	50 g	124
WI100GAC4C	100 g	131
WI200GAC4C	200 g	198
WI500GAC4C	500 g	274
WI001KAC4C	1 kg	511
WI002KAC4C	2 kg	815
WI005KAC4C	5 kg	1,179

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Additional Weights available in multiple Classes and approvals. Please call Sartorius at 800-635-2906 for more information.

LMA200PM Microwave Moisture Analyzer
Speed meets analytical precision

Designed for samples with higher moisture content ranging from 8% to 100%. Microwave technology is the fastest and most effective thermogravametric method (loss on drying principle) for moisture analysis. Results between typically 40-120 seconds on average. With cylindrical design, a focused emission of microwave energy is channeled vertically through dual apertures at the bottom of the chamber. The carousel rotates the sample permitting an even distribution of microwave energy, preventing hot and cold spots from occurring, a common problem with conventional microwave analyzers.

Features

– Controlled microwave energy
– Rotating carousel
– Built-in printer
– Patented microwave chamber
– Dual endpoint monitoring
– Multiple endpoint configurations
– Large touchscreen
– Password protected
– Applications development and support

Applications

– Dairy products
– Meat products
– Vegetables and pastes, fruit processing
– Canned and fresh vegetables
– Frozen foods
– Wet pet food
– Baby food
– Condiments
– Detergents (liquid) and shampoo
– Soy based liquids
– Latex, Paints (water based)
– Wastewater and effluent, ethanols

Benefits

Superior control of sample drying. Previous solids analyzers set at levels <100% did not actually deliver X% power. Instead they deliver 100% power at X% time on a duty cycle. In the LMA200, 70% power actually means the beam power is attenuated to 70% of maximum 100% power level.

Microwave energy is focused on the plane of the sample pads and the carousel spins the sample to evenly distribute the microwave energy, preventing hot and cold spots.

Built-in printer. No need to connect to a printer for hard copies of your results

Dual endpoint monitoring ensures correct results, using weight differential and monitoring the chamber moisture level.

Multiple end point configurations include; Fully automatic by means of mass and moisture, user defined as loss of weight/time, and timer mode

Applications development and support – when you purchase a LMA 200 Microwave, Sartorius will test your sample and develop a program that correlates to a Standard Reference Method. This service is offered at no charge. Currently we have tested and designed programs for over 10,000 materials.

Specifications & Pricing

Model	Capacity (g)	Readability (mg)	Reproducibility (1 g)	Calibration Type	Calibration Weight	Shipping Weight (lbs)	US List Price ($)
LMA 200PM	70	0.0001	± 0.05%	External	50 g	64	on request

Mark 3 High Performance and Mark 3 LTE

Simply the Best for all your moisture needs

The Mark 3 Moisture analyzer has been stringently designed to reduce the uncertainties commonly associated with loss-on-drying analyzers. Integrating the most advanced temperature resistant electronic balance with a heating chamber designed for near zero heat induced pan lift and balance drift, the Mark 3 will increase the accuracy and precision for analytical results of your most demanding samples. These features make the Mark 3 a genuine alternative to Karl-Fischer titration. The Mark 3 is available in a High Performance and LTE version (standard).

Features

– Four parallel infrared quartz cylinders for heating
– Up to 4 heater modules per control unit
– Large sample capacity
– Superior inter unit correlation
– In-House testing
– Built-in internal printer
– Superior drift specifications
– Monolithic weighing cell
– Multiple modes of operation
– Dual temperature set point capability
– Moisture content from 0.001% to 99.999%

Applications

– Plastics
– Pharmaceuticals
– Foods
– Chemicals
– Cosmetics
– Sugar
– Paints and coatings
– Pulp and Paper
– Waste treatment
– Dairy
– Ethanol

Benefits

Four parallel infrared quartz cylinders give exact temperature control to +/- 1 degree C, fast ramp-up to proper temperature without overheating eliminating burning of your sample as well as fast cooling enabling shorter times between tests.

Up to 4 heaters per control unit, adding 1 to 3 additional heater modules allows you to increase your throughput in testing.

All heater modules correlate to each other, ensuring your results are consistent among several units. No need to settle for "close enough" results.

Superior drift specifications – monolithic weigh cell and chamber design minimizes the drift, providing for more accurate results.

Standard modes of operation include % Moisture, % solids and syringe mode for testing volatiles, TGA mode for FREE and BOUND moisture, and Extrapolation mode which allows us to shorten test times while giving fast accurate answers.

Applications Development and Support – when you purchase a Mark 3 series unit, Sartorius will test your sample and develop a program that correlates to a Standard Reference Method. This service is offered at no charge. Currently we have tested and designed programs for over 10,000 materials.

Specifications & Pricing

Model	Capacity (g)	Readability (g)	Reproducibility (±)	Temp. Range (°C)	Calibration Type	Shipping Weight (lbs)	US List Price ($)
Mark 3 LTE	40	0.001	1 mg	30–210	External	35	5,495
Mark 3 HP	100	0.0001	0.1 mg	30 to 210	Internal or External	35	8,995

Mark 3 LTE

Mark 3 HP w/ multiple heater modules

MA37 Moisture Analyzer

Fast. Compact. Accurate.

MA37 is the next generation moisture analyzer and continues the legacy of the highly successful MA35. With its user intuitive color touchscreen the MA37 delivers fast, accurate results and is easy to operate. This compact device has a "Better-Clean" design which offers effortless cleaning. The integrated and easy to see status light makes it convenient and efficient to track the status of the measurement. Therefore, the MA37 is ideal for users who require a fast, reliable moisture analyzer which is simple to use and easy to clean.

Features

- All units show results % Moisture, grams / dry matter in % Solids and grams / ATRO in % M/S
- Touchscreen display
- Active display of Moisture curve during process
- LED-illuminated sample chamber, inspection window with grid above the hood
- Shutoff parameters – Fully automatic, semi-automatic, manual and with timer settings
- 1 program saved in non-volatile memory (freely selectable method parameters)
- Removable hood with wide opening angle, "Soft-Close" mechanism
- Mini USB, automatic printer detection
- Direct data transfer to pc- programs
- Infrared heating using metal tube heater

Applications

For quick and reliable determination of the moisture content of liquid, pasty and solid substances using the thermogravimetric method (Loss on Drying). Typical applications of the MA37 include the analysis of foods, beverages, pharmaceuticals, chemicals, paper materials and environmental protection products. For daily recurring moisture analysis tasks, such as in production or incoming goods inspection, the MA37 is the perfect solution!

Benefits

New user intuitive touchscreen display guides operator through all processes and set up.

Actual moisture curve is displayed during drying process taking the guess work out of the progress.

Easy-to-see drying sample during the measurement with the LED lighted chamber.

Fully automatic endpoint determination eliminates the cumbersome capture of termination criteria.

"Better-Clean" design makes it easy to disassemble and clean USB communications to a printer and direct data transfer to pc-programs without third party software or secondary programing needs.

New higher temperature heating coil with better and tighter specifications.

Specifications & Pricing

Model	Capacity (g)	Readability (mg)	Reproducibility (1 g)	Temp. Range (°C)	Calibration Type	Calibration Weight	Shipping Weight (lbs)	US List Price ($)
MA-37	70	0.01%	± 0.02%	40-160	External	50 g	18	2,900

MA160 Moisture Analyzer

Managing your sophisticated tasks fast, precise and easy

The MA160 is a next generation moisture analyzer and continues the success of the MA150. With its user intuitive color touchscreen the MA160 delivers fast, accurate and reliable results. With all the features of the MA37 included, the MA160 adds the additional features Method development, 99 program storage, Instrument performance testing, and SD card method sharing.

Features

- – All features of the MA37
- – 99 programs saved in non-volatile memory (freely selectable method parameters)
- – AURI - Infrared heating using metal tube heater 600W
- – Internal Software assistant for Method Development
- – Verification of Repeatability with our ReproEasy test pads
- – SD card memory method sharing with multiple units

Applications

With its optimized heating elements, the MA 160 produces high speed measurements. The MA160 is ideal for the moisture analysis of a varying range of samples under different conditions. It can generate new methods which allow you to create and effectively manage proprietary measurement procedures for various samples. This fully supports your work in the QC lab or in process control. Typical areas of applications for the MA 160 include the moisture analysis of foods, beverages, pharmaceuticals, chemicals paper materials and environmental protection.

Benefits

All the features of the MA37 including, Multiple result formats, User intuitive Touch Screen, Active display of Moisture curve, LED-illuminated sample chamber, Direct data transfer to Microsoft programs

Store 99 different programs in non-volatile memory with easy recall

AURI metal tube heater is 600 watts providing fastest reliable heating of your samples

Internal software assistant guides you through developing different methods saving you time and hassle in 3 easy steps

Verify the repeatability of your instrument using ReproEasy disposable test pads. This test can be done anytime at 3 different temperatures providing a simple Pass / Fail evaluation

Store methods/programs and results on the SD card. Transfer methods to other MA160 units or transfer to your PC for storage.

Specifications & Pricing

Model	Capacity (g)	Readability (mg)	Reproducibility (1 g)	Temp. Range (°C)	Calibration Type	Calibration Weight	Shipping Weight (lbs)	US List Price ($)
MA-160	200	1	± 0.02%	40–160	External	100 g	18	3,995

Moisture Analyzer Accessories & Consumables

Item	Description	US List Price ($)	MA-37	MA-160	Mark 3 HP	Mark 3 LTE	LMA200PM
Printers, Cables and Data Communication							
69TC0479	Disposable Pans 200 pcs	74	✓	✓	✓	✓	
6965542	High Performance Disposable Pans 80 pcs	tbd	✓	✓			
69MA0349	Lg volume sample pans 10 pcs	37			✓	✓	
69MA0325	Filter Pads	32	✓	✓	✓	✓	✓
69MA0327	High Grade Filter Pads	44	✓	✓	✓	✓	✓
YPH01MA	ReproEasy Test pads qty of 10	70	✓	✓			
YPH02MA	ReproEasy Test pads qty of 20	130	✓	✓			
69TC0480	Printer paper 10 rolls per box	56.7			✓	✓	✓
YDP20-OCE	Alphanumeric Dot Matrix printer	995	✓	✓			
YDP40	Standard Data Printer	795	✓	✓			
YDP30	Premium GLP laboratory printer	1245	✓	✓			
69Y03306	Power supply for YDP40 printer	221	✓	✓			
YCC03-D09	Adapter cable for connecting YDP-20 printer	46	✓	✓			
WI020GAC1T	External calibration weight ASTM Class 1, 20 grams with NIST certificate	92				✓	
WI030GAC2T	External calibration weight ASTM Class 2, 30 grams with NIST certificate	98	✓				
WI100GAC1T	External calibration weight ASTM Class 1, 100 grams with NIST certificate	122			✓		
TBD	Temperature calibration disk for MA series	tbd	✓	✓			
YST01MA	Tongs for removing pans	24	✓	✓			
84WAL10	MA-37 & MA160, One year Extended Warranty	487	✓	✓			
84WAL11	Mark 3 HP & LTE, One year Extended Warranty	700			✓	✓	
84WAL13	LMA 200, One year Extended Warranty	1500					✓
IQOQ	IQOQ Includes documentation book for Mark 3 and LMA 200	1000			✓	✓	✓
YDB09MA	Carrying case with wheels	550			✓	✓	
YCC01-MK3	Mark 3 to PC (USB) cable	22			✓	✓	
YCC01-MK-1	Mark 3 to PC (serial) cable	50			✓	✓	
YCC01-MK2	Mark 3 to PC ethernet cable	22			✓	✓	

Moisture Analysis individual
The Convenient and Reliable Way to Obtain Correct Results

Based on your samples, the Sartorius Applications Laboratory will determine the individual methods best for your specific needs first, then program these parameters into your moisture analyzer. This means you can start using your analyzer right out of the box to run custom-tailored moisture analysis – without the hassle of performing time-consuming test series on your own to find the ideal parameters and having to first program the device.

To ensure that our custom-configured analyzer will exactly fit your needs in enhancing the efficiency of your process, go ahead and try it before you buy it. We offer free trials with no strings attached.

You can rely on our expertise: we have a proven track record in successfully testing over 15,000 different samples for our customers by correlating them to existing reference methods.

Easy
Take care of the rest. Once your moisture analyzer has been preconfigured, all you will need to do is plug it in, conveniently select a program from the list and start the analysis. It will take you less than five minutes to be ready to run your tests.

Fast
Save yourself the inconvenience of having to perform time-consuming reference measurements using a drying oven or Karl-Fischer titration. Plus, you will benefit from optimized, faster analysis time that will make your process more efficient.

Reliable
Whether your samples need to comply with ASTM Standards, specific, national pharmacopeia requirements or German Industrial Standards DIN, you can totally rely on our methods. We will correlate the results of your moisture analyzer with those of the standard reference method you require and thus guarantee reliable, accurate results and traceability.

Description of the Individual Services Provided
Detailed definition and review of specific requirements and consultation provided by a Sartorius product specialist

Analysis of your samples at the Sartorius Applications Laboratory

Determination of reference values according to the specific standard you use (DIN, §64 LFBG, ASTM, pharmacopeia, etc.) or according to your individual SOP using the following methods:
– Oven-drying method
– Karl-Fischer titration, volumetric
– Karl-Fischer titration, coulometric
– Karl-Fischer titration, coulometric, with oven drying

Method development using your samples to correlate moisture analyzer results with those of reference methods
– Optimization of sample preparation and treatment
– Optimization of the initial sample weight for moisture analysis
– Determination of optimal parameters depending on need for accuracy or speed

Evaluation of measurement results according to your specific requirements

Preparation of a detailed test report

No-obligation two-week free trial of an individually preconfigured moisture analyzer delivered to your premises on the date you request

pHCore

Performing pH analysis has never been easier

Achieve rapid results with ease. pHCore offers fast and reliable pH measurements thanks to advanced algorithm technology. Features like stability control, automatic buffer recognition, automatic temperature compensation, AutoCal ensures accurate measurements in a quick amount of time.

Features

– Easy Key Operation: Mode, Cal, Stability control, OK, Scroll Navigation
– Large Easy-To-Read LCD Display
– Clear Status Icons and Indicators
– Simultaneous pH and Temperature Display, °C or °F
– Quick Review and Display of Electrode Calibration
– Meter Recognizes 16 Standard Buffers

Applications

– Academia Research and Teaching Labs
– Chemical Labs
– Environmental Labs
– Government Labs

Benefits

Ease your way through your daily pH routines
Germany quality - saves you time and puts you at ease knowing you will have reliably accurate results every time.

Seamless 2-point calibration routine
Set Autocal for easy recognition of daily buffer set and get to reading your pH sample faster.

Straight forward functions
You don't have to interpret the display anymore - Large display with easy to understand icons tell you instantaneously what your samples and systems are doing.

Specifications & Pricing

Model	pH	mV	Description	US List Price ($)
SE-5A	✓	✓	pHCore Meter, Power Supply and Cover	485
SE-5P	✓	✓	pHCore pH Kit Meter, Power Supply, Cover, and PY-P20 Electrode: Plastic Body, Gel Electrolyte, Ceramic Junction, Bulb Style	520

Common Specifications

	Range /± Accuracy	
pH	–2.0 … 20.0 ±0.1 pH	–2.00 … 20.00 ±0.01 pH
mV	± 1200.0 ±0.3 mV	± 2000 ±1 mV
Temperature	5.0 … +105.0 ± 0.1°C , manually adjustable to 130°C	

All models include BNC connector, power supply,, transparent cover, 4 AA batteries. Kits include electrode.

pHBasic Meters
Superior Results with Classic Functionality

Exceptional quality and reliable pH results are now within your reach. The pHBasic is a perfect benchtop meter for your basic everyday pH routines. Not only is it simple-to-use with classic interface design and intuitive icons, but it is faster due to optimized algorithms with harmonized measuring system of sensor with meter. The pHBasic is extremely reliable with real time indicators like ElectCheck, and Stability Control making this the classic go-to meter for any basic lab.

Features

– Classic no-fuss menus and intuitive operation
– Large LCD displays with simultaneous pH/mV & temperature
– Understandable status icons and indicators like Stability Control
– Automatic temperature compensation
– Automatic buffer recognition- up to 16 buffer sets
– Easy 1-2-3 point Calibration
– Quick access to electrode calibration data
– At a glance know your sensor efficiency & calibration integrity are intact/expired with ElectCheck

Applications

– Academia Research
– Industrial Labs
– Environmental Labs
– Government Labs

Benefits

Get superior results that are not complex
German quality that saves you time, provides faster reliable results but still maintains its user friendly and classic functionality for your basic everyday pH requirements.

Simple is better
Easy 1-2-3-point calibration routine, large LCD display, intuitive menu navigation, easy to understand indicators make for seamless pH routines.

Improve your pH workflows
With features such as ElectCheck and Stability Control, you do not have worry about the condition of your sensor, the integrity of your calibration or second guess when to take your reading. Know all of these at a simple glance.

ElectCheck is a sensor evaluation and calibration reminder. The sensor evaluation shows the electrode quality in increments. The integrity criteria are slope, zero point and reaction time. When the time interval has elapsed, an optical and an acoustical signal is activated.

Specifications & Pricing

Model	pH	mV	Description	US List Price ($)
SB-10A	✓	✓	pHBasic Meter only with Power Supply and Cover	550
SB-10	✓	✓	pHBasic Meter, Power Supply, Cover, 3 buffers, Arm, no Electrode	620
SB-10P	✓	✓	pHBasic pH Kit. Meter, Power Supply, Cover, 3 Buffers, Arm, Electrode: PY-P10 General purpose - pH/ATC, Plastic Body, Liquid 3M KCl refillable, ceramic junction, Bulb style	795
SB-11B	✓	✓	pHBasic Bio Kit. Meter, Power Supply, Cover, 3 Buffers, Arm, Electrode: PY-P11 High Performance - pH/ATC, Glass Body, Liquid 3M KCl refillable, air flush platinum junction, TRIS compatible, break resistant conical shaped tip, ideal for biological applications	925
SB-21F	✓	✓	pHBasic Food Kit. Meter, Power Supply, Cover, 3 Buffers, Arm, Electrode: PY-P27 Spearhead, pH, Glass Body, hole junction, polymer reference electrolyte, Spear style	975

Common Specifications

	Range /± Accuracy
pH	–2.0 … 20.0 ±0.1 pH │ –2.00 … 20.00 ±0.01 pH │ –2.000 … 19.999 ±0.005 pH
mV	± 1200.0 ±0.3 mV │ ± 2000 ±1 mV
Temperature	5.0 … +105.0 ± 0.1°C, manually adjustable to 130°C

All models include BNC connector, power supply, transparent cover, 4 AA batteries. Kits include: 4,7,10 buffers ampules, arm and specified electrode.

pHBasic+ Meters
Experience Complete Functionality

Enjoy quick results due to innovative algorithms, superior accuracy with 5 point calibration features, and operate with full functionality with advanced communication & documentation feature. Direct data transmission through convenient USB PC interface allows data memory of up to 500 points to provide a convenient and easy way to manipulate pH results for analysis. The same great classic interface design, intuitive graphic icons, and indicators like ElectCheck and Stability Control round out this robust meter.

Features

– Full functionality with USB data transmission
– Recall and output of 500 data set memory
– Superior Accuracy with up to 5-point Calibration
– Easy–to-use menus and intuitive operation sets
– Sensor efficiency & calibration integrity with ElectCheck
– Clear status icons and indicators like Stability Control
– Large LCD display
– Automatic temperature compensation
– Automatic buffer recognition
– Programmable data collection

Reliable and fast communication interface. Transfer up to 500 data points using RS232 or USB to computer interface with no adaptors needed. Capture GLP time & date stamps and calibration record or printout quickly via RS232 or USB (slave).

Benefits

Complete functionality at your fingertips
Fast and accurate results, easy operation, and capacity to have direct data recall and transfer. A complete pack for your entire pH requirements.

Make your pH routines more efficient
Large LCD display, intuitive menu navigation and easy to understand indicators make for a seamless pH routine. ElectCheck and Stability Control know the conditions of your sensor, the integrity of your calibration at a simple glance.

Superior accuracy
Up to 5-point calibration gives a broader range in slope accuracy.

Specifications & Pricing

Model	Description	US List Price ($)
SP-10A	pHBasic+. Meter only with Power Supply, Cover	699
SP-10	pHBasic+ Kit. Meter, Power Supply, Cover, Arm	725
SP-10P	pHBasic+ pH Kit. Meter, Power Supply, Cover, Arm, 3 Buffer, Electrode: PY-P10 General purpose – pH/ATC, Plastic Body, Liquid 3M KCl refillable, ceramic junction, Bulb Style	825
SP-11B	pHBasic+ Bio Kit. Meter, Power Supply, Cover, Arm, 3 Buffer, Electrode: PY-P28, Glass Body, Liquid Filled 3M KCl, 3x junction, Iodine/Iodide-reference system, length 170 mm	990
SP-21F	pHBasic+ Food Kit. Meter, Power Supply, Cover, Arm, 3 Buffer, Electrode: PY-P30 Speartip, Glass Body, 3x ceramic junction	999
Common Specifications		
pH	–2.0 … 20.0 ±0.1 pH │ –2.00 … 20.00 ±0.01 pH │ –2.000 … 19.999 ±0.005 pH	
mV	±(1200.0 ±0.3) mV │ ±(2000 ±1) mV	
Temperature	–5.0 … +105.0 ± 0.1℃ , manually adjustable to 130℃	

All models include BNC connector, power supply, transparent cover, 4 AA batteries. Kits include: 4,7,10 buffers ampules, arm and specified electrode

pHPro Meters
Professional Performance with Complete Compliance

pHPro is the most advanced meter to excel at your professional pH, conductivity, ISE and DO analyses. Be reassured, measurements have never been so accurate with German technology, wider ranges, auto cal and 5-point calibrations. Feel confident with data transfer, data storage and ElectCheck features that meet all your GLP regulatory requirements. pHPro offers multi-parameter analysis options and is the whole package: quality, multi-functionality, documentation, & convenience - a true professional at work for you.

Features

- – Exact measurements with wider measuring ranges and better accuracy specifications
- – Advance GLP Documentation with time and date stamps
- – Direct data transmission with RS232 and USB interfaces
- – Automated calibration with up to 5 points
- – Automatic buffer recognition out of 22 buffer sets

Benefits

Multi-functionality in One
Need advanced pH measurements, select pHPro15. For conductivity, select pHPro20. For an all-in-one meter, select pHPro 50 and have it all: pH, ISE, DO, Conductivity and up to three parameters displayed simultaneously.

Complete Documentation
Feel confident and rely on wireless sensor recognition & user identification. User name can be assigned to each measured value. pHPro also complies with GLP requirements with administrator rights or user identification via an electronic ID card.

User Convenience
Large LCD display, Intuitive menu navigation, ElectCheck and Stability Control to know the conditions of your sensor, the integrity of your calibration and stability of your reading at a single glance.

	pH	mV	ISE	Cond.	DO	Temp.	Sensor/User ID
Pro15	✓	✓	✓			✓	✓
Pro20				✓		✓	
Pro50	✓	✓	✓	✓	✓	✓	✓

Specifications & Pricing

Model	Description	US List Price ($)
PR-15A	Pro 15 pH Meter, Power supply, Cover, Arm, 3 Buffers	1,165
PR-15P	Pro 15 pH Kit. Meter B&W backlit display, Power Supply, Cover, Arm, 3 Buffers, Manual, Electrode: PY-P11 High Performance - pH/ATC, Glass Body, Liquid 3M KCl refillable, air flush, 2X Junction, Platinum TRIS compatible, break resistant conical tip	1,425
PR-15B	Pro 15 pH Bio Kit. Meter, B&W backlit display, Power supply, Cover, Arm, 3 Buffers, Manual, Electrode PY-P28 GoldLINE, pH/ATC, Glass Body, Liquid Filled 3M KCl, Platinum junction,TRIS Impervious, Iodine/Iodide-reference	1,595
PR-20A	Pro20 Conductivity. Meter with Power supply, Cover, Arm	850
PR-20C	Pro 20 Conductivity Kit. Meter, Power Supply, Cover, Arm, Conductivity Sensor: PY-C12 ATC, Multi-range,Target Configuration 1-200,000 μS/cm	1,275
PR-50A	Pro50 Multi-parameter. Meter with ID sensor Card. B&W Display. Menu Structured Handling. Recorder Function. Cond pH, mV, Temp, ISE, DO RS232- USB slave 1BNC . Incl. Power Supply. Cover, Arm, 3 Buffers	2,449
PR-50B	Pro 50 Bio Kit. Meter with ID sensor Card. B&W Display. Menu Structured Handling. Recorder Function. pH, mV, Temp, ISE., Conductivity, DO RS232- USB slave 1BNC . Power Supply. Cover, Arm,3 Buffers, Electrode PY-P28 GoldLINE, pH/ATC, Glass Body, Liquid Filled 3M KCl, Platinum junction,TRIS Impervious, Iodine/Iodide-reference	2,599

Common Specifications

	Pro15 & 50	Pro15 & 50	Pro20	Pro15 & 50	Pro50	Pro15, 20 & 50
Mode	pH	mV	Conductivity	ISE	Dissolve Oxygen	Temperature
Range	–2 … 19.999	0…1200.0/2000	0 μS/cm …1000 mS/cm	0.000…999,999 mg/l	0…20.00mg/L	5.0 … +105.0
Resolution	± 0.1/0.01/0.001	± 0.1	±1 digit	± 0.1/0.01/0.001	± 0.1	± 0.1
Accuracy	±0.1/0.01/0.001	±0.3/1	± 0.50%	0.0…500,000 mg/l	± 0.50%	± 0.1°C

All models include power supply, transparent cover, 4 AA batteries. Kits include: 4,7,10 buffers ampules, arm and specified electrode.

Electrodes & Accessories for Meters
Superior Sensors – Precise Results

Electrochemical analysis is one of the most frequent and demanding tasks in daily lab routines. Sartorius understands that measurements will differ based on compositions, temperatures, conductivities and viscosities of samples and it is these different conditions that set our electrodes apart from the rest. Whether for ultrapure water, jam, wine, TRIS Buffers, or drinking water, Sartorius has the right superior and dependable electrode for your sample types and application workflows.

Applications
– Cosmetics
– Agriculture
– Dairy
– Food & beverage
– Surface - skin and textiles
– Drinking water
– Detergents agents
– Pharmaceutical/Biotech/Clinical/Pharmacy
– Biology/Microbiology & Chemistry Lab
– Extreme and difficult samples

Benefits

The widest selection of choice. Now with the GoldLINE and PlatinumLINE electrodes Sartorius will meet any and all of your unique samples types and application requirements.

Patented junction and three chamber systems set sensors apart from the rest. Reduce and/or eliminate metal ion contamination and chelation. Ultimately minimizes damage to sensors, elongating the life of the electrodes, saving time and money. Increase productivity and mitigate faulty measurements.

The highest quality materials result in better precision and accuracy. The low resistance type A glass membranes are a perfect example of where quality materials interact with samples with less interference, yielding both speed and accuracy.

Liquid electrolyte electrodes with unique platinum junction and refill port slider for easier refilling and less evaporation of the electrolyte. Air flush cap system prevents clogs from forming.

Individual serial number on each electrode for clear identification.

Flexibility and convenience. Integrated and Non-integrated temperature sensor ATC or with ATC.

TRIS Compatibility and Impervious models available for Biological applications.

GoldLINE Electrodes

Superior stable results due to patented three chamber Iodine/Iodide metal-ion free reference system that lower temperature sensitivities and provides a metal ion free reference system.

Model	Description	US List Price ($)
PY-P28	Pharma Grade - pH/ATC, TRIS Impervious, Glass Body, Liquid Filled 3M KCl, 3X Junction, Iodine/Iodide reference	595
PY-P29	Micro - 5mm dia., pH/ATC, TRIS Impervious, Glass Body, Liquid Filled 3M KCl, 3X Junction, Iodine/Iodide–reference	605
PY-P30	Speartip pH/ATC Glass Body, 3x Ceramic Junction, Polymer Filled	625

PlatinumLINE Electrodes

Fast and accurate results with high quality materials, low resistance A type glass membrane or unique Platinum junctions with patented Ag /AgCl reference system.

Model	Description	Body Type Glass	Body Type Plastic	Fill Solution Liquid	Fill Solution Gel	ATC	US List Price ($)
PY-P10	General purpose - pH/ATC, Liquid 3M KCl refillable, ceramic junction, Bulb style	−	✓	✓	−	✓	210
PY-P11	High Performance - pH/ATC, Liquid 3M KCl refillable, air flush platinum junction, TRIS compatible, break resistant conical shaped tip, ideal for biological applications, easy to clean	✓	−	✓	−	✓	305
PY-P21	High Performance - pH, Liquid 3M KCl refillable, air-flush platinum junction, TRIS compatible, break resistant conical shaped tip, ideal for biological applications, easy to clean	✓	−	✓	−	−	176
PY-P12	Low Maintenance - pH/ATC, ceramic junction	−	✓	−	✓	✓	255
PY-P20	Low Maintenance - pH, ceramic junction	−	✓	−	✓	−	155
PY-P22	Micro - 5mm diameter - pH, Liquid 3M KCl refillable, air flush platinum junction, TRIS compatible ideal for low volume samples	✓	−	✓	−	−	237
PY-P23	Flat-Surface - pH, Gel Filled, circular junction, ideal for meats, cheeses, agar, skin	✓	−	−	✓	−	242
PY-P24	Sleeve - pH, Liquid 3M KCl refillable, Sleeve junction, ideal for low ionic samples	✓	−	✓	−	−	320
PY-P27	Speartip - pH, hole junction, Poylmer Filled	−	✓	−	✓	−	319
PY-P26	Econo - pH/ATC, fiber junction, Bulb style	−	✓	−	✓	✓	176
PY-P25	Econo - pH, fiber junction, Bulb style	−	✓	−	✓	−	116
PY-T01	Temperature - ATC, 2.5mm, Stainless Steel Body	−	−	−	−	✓	187
PY-R01	ORP Combination for REDOX oxidation/reduction potentials	✓	−	✓	−	−	275
PY-D01	Galvanic Dissolved Oxygen Probe						700

Notes: pH is BNC connection   ATC is 2.5 mm connection   Cable length is 1.5 mm

Conductivity Cells

Model	Description	Conductivity Range	pH	ATC	US List Price ($)
PY-CL1	1.0 cm-1 Conductivity Cell - 2 band	0.1 to 19,990 µS/cm	−	✓	170
PY-C01	0.5 cm-1 Conductivity Cell - 4 band	0.5 to 2,000 µS/cm	−	✓	440
PY-C02	1.0 cm-1 Conductivity Cell - 4 band	10 to 5,000 µS/cm	−	✓	440
PY-C03	10 cm-1 Conductivity Cell - 4 band	1,000 to 200,000 µS/cm	−	✓	440
PY-C12	Multi Range, Target Configuration Conductivity/ATC	1 to 2 mS/cm	−	✓	500
PY-PC1	Multi-sense 1.0 cm Conductivity/pH/ATC	10 to 5,000 µS/cm	✓	✓	595

Note: Conductivity cells have multi-pin DIN connectors, range dependent on meter

Accessories

Model	Description	US List Price ($)
PY-B250	250 mL Buffer Bottle Set 4,7,10	76
PY-B1L	1000 mL Buffer Bottle Set 4,7,10	112
YCC-PRO	1.5M RS-232 Cable	65
PY-A02	Basic Meter Arm	95
PY-A03	Pro Meter Arm	150
PY-A04	DO Probe Maintenance kit	215
PY-A01	Electrode Storage Container	55

Picus® Electronic Pipettes
The Most Sophisticated and Ergonomic Pipette Ever!

Picus® is Sartorius' most ergonomic pipette in the Biohit *family*. Designed to revolutionize pipetting, it is the smallest and lightest electronic pipette on the market. This enables it to ease the user's workload and provides protection from repetitive strain injury (RSI). Its new generation technology, electronic brake and piston control system guarantee accurate and precise pipetting results.

Features

Excellent Ergonomics
– Extremely small and light electronic pipette (only 100 g)
– Comfortable handle design and finger hook
– Light, electronic tip ejection

New Generation Technology
– Enhanced DC-motor concept provides outstanding accuracy and repeatability of the results

Intuitive User–Interface
– Available with five language options: English, Chinese, French, German and Russian

Handy Adjustment Wheel
– Offers extremely fast volume setting and easy menu navigation
– Enables ergonomic one-handed operation
– Controls accurately manual pipetting and titrating speed with just a light touch of the thumb

Microwell Plate Tracker
– Unique built-in tracker for 96 and 384 well plates guides the user to pipette into the correct wells
– Improves work efficiency and reliability of results

Optiload for Perfect Tip Sealing
– Allows tip loading with an equal constant force onto every channel
– Enables perfect tip sealing onto every individual tip cone
- Optiload is available only in multichannel models

Safe–Cone Filters
– Prevent contamination
– In all models > 10 µl

Autoclavable Lower Parts (excl. 1200 µl models)
– For easy cleaning

Benefits

Enjoy Pipetting
– Our lightest and smallest electronic pipette protects you from RSI (repetitive strain injury) and eases your workload in long pipetting series
– New ergonomic design ensures an optimal working posture and comfortable pipetting
– Effortless, electronic tip ejection

Achieve Reliable Results
– New generation technology – the electronic brake and piston control system guarantee accurate and precise pipetting results
– A unique plate tracker increases reliability in microwell plate work, by guiding pipetting steps
– Fully electronic operation guarantees user-independent results

Learn to Use It in a Minute
– Intuitive user interface with five language options helps learning the main functions easily without a manual
– Fastest volume setting and easy menu navigation with unique adjustment wheel
– Hot key provides fast access to your favorite programs, easing routine work

1-channel models   12-channel models   8-channel models

Picus® – Specifications & Pricing

Model	Channels		Volume Range (µl)	Increment (µl)	Test Volume (µl)	System. Error (%)	Random Error (%)	Safe-Cone Filters Standard	Plus	Optifit Tips (µl)	SafetySpace™ Filter Tips (µl)	US List Price ($)
735021	1	●	0.2–10	0.01	10	0.90	0.40	–	–	10	10	840
					5	1.00	0.70					
					1	2.50	1.50					
735041	1	●	5–120	0.10	120	0.40	0.15	721008	721010	200	120	840
					60	0.60	0.20			350		
					12	2.00	1.00					
735061	1	●	10–300	0.20	300	0.40	0.15	721007	721017	350	300	840
					150	0.60	0.20					
					30	1.50	0.80					
735081	1	●	50–1000	1.00	100	0.40	0.15	721006	721016	1000	1000	840
					500	0.60	0.20					
					100	1.50	0.50					
735101	1	●	100–5000	5.00	5000	0.50	0.15	721005	721015	5000	–	840
					2500	0.80	0.20					
					1000	1.00	0.40					
735111	1	●	500–10000	10.00	10000	0.60	0.20	721005	721015	10000	–	840
					5000	1.20	0.30					
					1000	3.00	0.60					
735321	8	●	0.2–10	0.01	10	0.90	0.50	–	–	10	10	1,395
					5	1.50	0.80					
					1	4.00	3.00					
735341	8	●	5–120	0.10	120	0.50	0.20	721008	721018	200	120	1,395
					60	0.70	0.30			350		
					12	2.00	1.50					
735361	8	●	10–300	0.20	300	0.50	0.20	721007	721017	350	300	1,395
					150	0.70	0.30					
					30	2.00	1.00					
735391	8	●	50–1200	1.00	1200	0.50	0.20	721006	721016	1200	1200	1,395
					600	1.00	0.30					
					120	2.50	1.00					
735421	12	●	0.2–10	0.01	10	0.90	0.50	–	–	10	10	1,770
					5	1.50	0.80					
					1	4.00	3.00					
735441	12	●	5–120	0.10	120	0.50	0.20	721008	721018	200	120	1,770
					60	0.70	0.30			350		
					12	2.00	1.50					
735461	12	●	10–300	0.20	300	0.50	0.20	721007	721017	350	300	1,770
					150	0.70	0.30					
					30	2.00	1.00					
735491	12	●	50–1200	1.00	1200	0.50	0.20	721006	721016	1200	1200	1,770
					600	1.00	0.30					
					120	2.50	1.00					

All pipettes include universal AC-adaptor (EU, UK, US | JPN, AUS and CHN plugs)

Accessories

Item	Description	US List Price ($)
730981	Charging Stand for one pipette	200
730991	Charging Carousel for 4 pipettes	485
725620	Linear Stand (non-charging)	120
Pre-Delivery Calibration Certificates (for more info, see page 161)		
84JOP04	Single Channel 5.3 Calibration Electronic Pipette	50
84JOP05	(8) Channel 5.3 Calibration Electronic Pipette	78
84JOP12	(12) Channel 5.3 Calibration Electronic Pipette	99
Extended Warranty (for more info, see page 166)		
84WAP04	12 months Electronic Single Channel Pipette	136
84WAP05	12 months Electronic (8) Channel Pipette	205
84WAP12	12 months Electronic (12) Channel Pipette	245

Charging Carousel

Charging stands include universal AC-adaptor (EU, UK, US | JPN and CHN plugs)

Picus® NxT Electronic Pipettes
For Highly Regulated Laboratories

Picus® NxT offers distinct advantages for compliance in strictly regulated laboratories with its added certification, safety features and technology. Its superior design, adopted from the proven Picus®, provides maximum operating convenience, considerably easing your workload.

Features

Certificate of accredited 3-point calibration (per ISO 17025 and ISO 8655)
- Delivered with the product. Pipette is ready for use from day one, also in highly regulated laboratories

RFID-enabled to support asset management

Password protection
- Prevent unauthorized changes to stored programs

Repeated blow-out function
- Facilitates dispensing of the very last droplets of your sample, even of viscous liquids, for example.

Benefits

Enjoy Pipetting
- Uniquely lightweight (only 100 grams!) and streamlined design for effortless pipetting experience
- Conveniently located soft-touch operating button and electronic tip ejection help minimize muscle strain
- The comfortable design of the handle and the finger hook enable Picus® NxT to rest lightly in your hand, with minimum effort

Achieve Reliable Results
- Unique plate tracker increases reliability in microwell plate dispensing
- Electronic piston control and brake guarantee accurate and precise pipetting results, independent of the user
- Repeated blow-out function helps dispense the very last liquid droplets, ensuring complete recovery
- Safe-Cone Filters prevent the risk of contamination, cost-effectively

Speed Up Your Work
- The unique adjustment wheel offers extremely fast volume setting and menu navigation
- The extensive range of pipetting modes, from diluting and titrating to serial dispensing, helps to perform the pipetting tasks quickly and easily

Conform to Lab Regulations
- Certificate of accredited 3-point calibration (per ISO 17025 and ISO 8655) conforms to the strictest regulations
- RFID-enabled to support asset management
- Password protects stored programs from unauthorized changes

Picus® NxT– Specifications & Pricing

Model	Channels	Volume Range (µl)	Increment (µl)	Test Volume (µl)	System. Error (%)	Random Error (%)	Safe-Cone Filters Standard	Plus	Optifit Tips* (µl)	SafetySpace™ Filter Tips*(µl)	US List Price ($)
LH-745021	1	0.2-10	0.01	10 5 1	0.90 1.00 2.50	0.40 0.70 1.50	–	–	10	10	925
LH-745041	1	5-120	0.10	120 60 12	0.40 0.60 2.00	0.15 0.20 1.00	721008	721018	200 350	120	925
LH-745061	1	10-300	0.20	300 150 30	0.40 0.60 1.50	0.15 0.20 0.80	721007	721017	350	300	925
LH-745081	1	50-1000	1.00	1000 500 100	0.50 0.80 1.00	0.15 0.20 0.50	721006	721016	1000	1000	925
LH-745101	1	100-5000	10.00	5000 2500 500	0.60 1.20 3.00	0.15 0.20 0.40	721005	721015	5000	–	925
LH-745111	1	500-10000	10.00	10000 5000 1000	0.60 1.20 3.00	0.20 0.30 0.60	721005	721015	1000	–	925
LH-745321	8	0.2-10	0.01	10 5 1	0.90 1.50 4.00	0.50 0.80 3.00	–	–	10	10	1,535
LH-745341	8	5-120	0.10	120 60 12	0.50 0.70 2.00	0.20 0.30 1.50	721008	721018	200 350	120	1,535
LH-745361	8	10-300	0.20	300 150 30	0.50 0.70 2.00	0.20 0.30 1.00	721007	721017	350	300	1,535
LH-745391	8	50-1200	1.00	1200 600 120	0.50 1.00 2.50	0.20 0.30 1.00	721006	721016	1200	1200	1,535
LH-745421	12	0.1-10	0.01	10 5 1	0.90 1.50 4.00	0.50 0.80 3.00	–	–	10	10	1,895
LH-745441	12	5-120	0.10	120 60 12	0.50 0.70 2.00	0.20 0.30 1.50	721008	721018	200 350	120	1,895
LH-745461	12	10-300	0.20	300 150 30	0.50 0.70 2.00	0.20 0.30 1.00	721007	721017	350	300	1,895
LH-745491	12	50-1200	1.00	120 600 120	0.50 1.00 2.50	0.20 0.30 1.00	721006	721016	1200	1200	1,895

*Low Retention Tips are available in volumes up to 1200 µl

All pipettes include universal AC-adaptor (EU, UK, US | JPN, AUS and CHN plugs)

Pre-Delivery Calibration Certificates (for more info, see page 161)		
84JOP04	Single Channel 5.3 Calibration Electronic Pipette	50
84JOP05	(8) Channel 5.3 Calibration Electronic Pipette	78
84JOP12	(12) Channel 5.3 Calibration Electronic Pipette	99
Extended Warranty (for more info, see page 166)		
84WAP04	12 months Electronic Single Channel Pipette	136
84WAP05	12 months Electronic (8) Channel Pipette	205
84WAP12	12 months Electronic (12) Channel Pipette	245

eLINE® Electronic Pipettes
Classic Convenience

The electronic Sartorius eLINE® pipettes in the Biohit*family* have been providing high precision and comfort for years. This device is the first electronic pipette designed to take care of its user. The comprehensive range of pipetting modes in eLINE® reduces the need for several work stages and enables liquid dispensing twice as fast as a mechanical pipette. Its unique DC-motor concept with built-in error control, improves pipetting precision and allows more reliable results.

Features & Benefits

Ergonomic Design
– Comfortable handle design and finger hook
– Light, electronic tip ejection
– Reduces risk of strain injuries

Fully Electronic Operation
– Guarantee user-independent results and prevent strain injuries

Comprehensive Range of Pipetting Modes (8)
– Twice as fast as a mechanical pipette

Optiload for Perfect Tip Sealing
– Allows tip loading with an equal constant force onto every channel
– Enables perfect tip sealing onto every individual tip cone

Safe-Cone Filters
– Prevent contamination
– In all models > 10 µl

Autoclavable Lower Parts (excl. 1200 µl models)
– Allow easy cleaning

Liquid Dispensing from the Air
– Shoots the last droplet out without touching the vessel wall
– With eLINE® 0.1-5 µl model with Super Pipetting feature

eLINE® – Specifications & Pricing

Model	Channels		Volume Range (µl)	Increment (µl)	Test Volume (µl)	System Error (%)	Random Error (%)	Safe-Cone Filters Standard	Plus	Optifit Tips (µl)	SafetySpace™ Filter Tips (µl)	US List Price ($)
730011	1	⚪	0.1–5	0.05	5	1.20	0.70	–	–	10	10	730
					2.5	1.70	1.20					
					0.5	9.50	8.00					
730021	1	⚪	0.2–10	0.05	10	0.90	0.40	–	–	10	10	730
					5	1.00	0.70					
					1	3.50	2.30					
730041	1	🟡	5–120	0.50	120	0.60	0.15	721008	721018	200	120	730
					60	0.80	0.20			350		
					12	2.50	1.00					
730061	1	🟠	10–300	1.00	300	0.40	0.15	721007	721017	350	300	730
					150	0.60	0.20					
					30	1.50	0.80					
730081	1	🔵	50–1000	5.00	1000	0.40	0.15	721006	721016	1000	1000	730
					500	0.60	0.20					
					100	1.50	0.50					
730101*	1	🟢	100–5000	10.00	5000	0.50	0.15	721006	721016	5000	–	730
					2500	0.80	0.20					
					500	1.00	0.40					
730321	8	⚪	0.2–10	0.05	10	0.90	0.50	–	–	10	10	1,165
					5	1.50	0.80					
					1	4.00	3.00					
730341	8	🟡	5–120	0.50	120	0.80	0.20	721008	721018	200	120	1,165
					60	0.70	0.30			350		
					12	3.00	1.50					
730361	8	🟠	10–300	1.00	300	0.50	0.20	721007	721017	350	300	1,165
					150	0.70	0.30					
					30	2.00	1.00					
730391	8	🟣	50–1200	5.00	1200	0.50	0.20	721006	721016	1200	1200	1,165
					600	1.00	0.30					
					120	2.50	1.00					
730421	12	⚪	0.2–10	0.05	10	0.90	0.50	–	–	10	10	1,385
					5	1.50	0.80					
					1	4.00	3.00					
730441	12	🟡	5–120	0.50	120	0.80	0.20	721008	721018	200	120	1,385
					60	0.70	0.30			350		
					12	3.00	1.50					
730461	12	🟠	10–300	1.00	300	0.50	0.20	721007	721017	350	300	1,385
					150	0.70	0.30					
					30	2.00	1.00					
730491	12	🟣	50–1200	5.00	1200	0.50	0.20	721006	721016	1200	1200	1,385
					600	1.00	0.30					
					120	2.50	1.00					

All eLINE® Electronic Pipettes are supplied with universal AC adapter   *NOTE: Min. volume in P-mode is 500 µl. 100 µl is possible in d-mode

Accessories

Item	Description	US List Price ($)
730981	Charging Stand for one pipette	200
730991	Charging Carousel for 4 pipettes	485
725620	Linear Stand (non-charging)	120
Pre-Delivery Calibration Certificates (for more info, see page 161)		
84JOP04	Single Channel 5.3 Calibration Electronic Pipette	50
84JOP05	(8) Channel 5.3 Calibration Electronic Pipette	78
84JOP12	(12) Channel 5.3 Calibration Electronic Pipette	99
Extended Warranty (for more info, see page 166)		
84WAP04	12 months Electronic Single Channel Pipette	136
84LWAP05	12 months Electronic (8) Channel Pipette	205
84WAP12	12 months Electronic (12) Channel Pipette	245

Charging Carousel

Charging stands include universal AC-adaptor (EU, UK, US | JPN and CHN plugs)   Safe-Cone Filters- See page 82   Tips- See page 70

mLINE® Mechanical Pipettes
Effortless Accuracy

Sartorius' most advanced mechanical pipette in the Biohit*family* – the mLINE® – offers excellent ergonomics, performance and safety in manual pipetting. It is particularly designed for repetitive and long-lasting pipetting in order to prevent work related hand, arm and shoulder disorders or repetitive strain injury (RSI). mLINE® is recommended by health and safety officers around the globe. It covers the full volume range of 0.1 µl to 10 ml.

Features & Benefits

Extremely Light Pipetting Forces & Ergonomic Design
– Prevents repetitive strain injury (RSI)
– Better pipetting results in long-lasting pipetting

Secured Volume Setting
– Volume lock prevents accidental volume changes while pipetting
– Large, easy-to-read volume display minimizes the risk of volume-setting errors

Thermal Insulation of Internal Components to Improve Accuracy
– Improves accuracy in long pipetting series

Optiload for Perfect Tip Sealing
– Allows tip loading with an equal constant force onto every channel
– Enables perfect tip sealing onto every individual tip cone
– Makes tip ejection light and easy
- Available in single and multichannel models

Safe-Cone Filters
– Prevent contamination
– In all models > 10 µl
– Unique filter ejection mechanism for easy removal

Materials Have High Chemical and UV–Resistance
– Highly durable and long-lasting pipette

Fully Autoclavable without Disassembly
– Easy to steam sterilize, improves purity

Only Three Parts to Disassemble
– Very easy to clean and maintain
– Improves purity and secures functionality

mLINE® – Specifications & Pricing

Model	Channels	Volume Range (µl)	Increment (µl)	Test Volume (µl)	System. Error (%)	Random Error (%)	Safe-Cone Filters Standard	Filters Plus	Optifit Tips (µl)	SafetySpace™ Filter Tips (µl)	US List Price ($)
725010	1 ⚪	0.1-3	0.002	3	1.30	0.80	–	–	10	10	360
				1.5	2.40	1.60					
				0.3	10.00	6.00					
725020	1 ⚪	0.5-10	0.01	10	1.00	0.60	–	–	10	10	360
				5	1.50	1.00					
				1	2.50	1.50					
725030	1 🟡	2-20	0.02	20	0.90	0.40	721014	–	200	20	360
				10	1.20	1.00					
				2	3.00	2.00					
725050	1 🟡	10-100	0.10	100	0.80	0.15	721008	721018	200	120	360
				50	1.00	0.40			350		
				10	2.00	1.00					
725060	1 🟡	20-200	0.20	200	0.60	0.15	721007	721017	200	200	360
				100	0.80	0.30			350	300	
				20	2.00	0.80					
725070	1 🔵	100-1000	1.00	1000	0.60	0.20	721006	721016	1000	1000	360
				500	0.60	0.20					
				100	1.00	0.40					
725080	1 🟢	500-5000	10.0	5000	0.50	0.20	721005	721015	5000	–	360
				2500	0.60	0.30					
				500	2.00	0.60					
725090	1 🔴	1-10 ml	20.0	10000	0.60	0.20	721005	721015	10 000	–	360
				5000	1.20	0.30					
				1000	3.00	0.60					
725120	8 ⚪	0.5-10	0.01	10	1.50	1.00	–	–	10	10	850
				5	2.50	2.50					
				1	4.00	4.00					
725130	8 🟡	5-100	0.10	100	0.70	0.25	721008	721018	200	120	850
				50	1.00	0.70			350		
				10	3.00	1.50					
725140	8 🟠	30-300	0.20	300	0.60	0.25	721007	721017	350	300	850
				150	1.00	0.50					
				30	2.00	1.00					
725220	12 ⚪	0.5-10	0.01	10	1.50	1.00	–	–	10	10	1,015
				5	2.50	2.50					
				1	4.00	4.00					
725230	12 🟡	5-100	0.10	100	0.70	0.25	721008	721018	200	120	1,015
				50	1.00	0.70			350		
				10	3.00	1.50					
725240	12 🟠	30-300	0.20	300	0.60	0.25	721007	721017	350	300	1,015
				150	1.00	0.50					
				30	2.00	1.00					

Accessories

Item	Description	US List Price ($)
725600	Carousel Stand for 6 pipettes	120
725610	Pipette Holder for one pipette	5
725620	Linear Stand	120
726203	Calibration tool │ Tube opener	20
726001	Color coding caps, 5 pcs	19
Pre-Delivery Calibration Certificates (for more info, see page xxx)		
84JOP01	Single Channel 5.3 Calibration Mechanical Pipette	50
84JOP02	(8) Channel 5.3 Calibration Mechanical Pipette	78
84JOP10	(12) Channel 5.3 Calibration Mechanical Pipette	99
Extended Warranty (for more info, see page 166)		
84WAP01	12 months Mechanical Single Channel Pipette	89
84WAP02	12 months Mechanical (8) Channel Pipette	161
84WAP10	12 months Mechanical (12) Channel Pipette	187

Carousel Stand

mLINE® Multipacks

With the mLINE® Multipacks you can affordably replace your used mechanical pipettes with new ones or set up new workstations for every researcher. A set of three to five mLINE® mechanical pipettes, a Linear Stand and racks of matching tips are included in the packs.

Specifications & Pricing

Item	Description	US List Price ($)
LH-725661	**mLINE® Pipette 3-pack 10** – mLINE® pipettes 0.5-10 µl, 10-100 µl, 100-1000 µl – Sartorius Optifit Tip tray box 0.2-10 µl, 0.5-200 µl, 10-1000 µl – Linear Stand	1,015
LH-725662	**mLINE® Pipette 3-pack 20** – mLINE® pipettes 2-20 µl, 20-200 µl, 100-1000 µl – Sartorius Optifit Tip tray box 0.5-200 µl, 10-1000 µl – Linear Stand	1,015
LH-725663	**mLINE® Pipette 4-pack** – mLINE® pipettes 0.5-10 µl, 10-100 µl, 20-200 µl, 100-1000 µl – Sartorius Optifit Tip tray box 0.2-10 µl, 0.5-200 µl, 10-1000 µl – Linear Stand	1,275
LH-725664	**mLINE® Pipette 5-pack** – mLINE® pipettes 2-20 µl, 10-100 µl, 20-200 µl, 100-1000 µl, 500-5000 µl – Sartorius Optifit Tip tray box 0.5-200 µl, 10-1000 µl, 5000 µl – Linear Stand	1,580
LH-725665	**mLINE® Pipette 3+1-pack** – mLINE® pipettes 0.5-10 µl, 20-200 µl, 100-1000 µl and 8-channel 30-300 µl – Sartorius Optifit Tip tray box 0.2-10 µl, 0.5-200 µl, 5-350 µl, 10-1000 µl – Linear Stand	1,685

Proline® Plus Mechanical Pipettes

Dependable Durability

Proline® Plus is designed to offer comfort and quality in every day manual pipetting. While it shares many of the excellent features of mLINE®, it has a personal design and a durable feel for heavier use. In addition, it has the widest pipette range, including fixed volume pipettes, for when volumes need to be ready-set to avoid errors. Proline® Plus pipettes are an excellent choice for both experienced laboratory professionals and students.

Features & Benefits

Widest Range of Pipettes, Both Adjustable and Fixed Volume, Available
– Adjustable volume pipettes for professionals
– Fixed volume pipettes for specific applications to avoid volume setting errors

Light Pipetting Forces & Ergonomic Design
– Prevents repetitive strain injury (RSI)

Easy-to-read Volume Display
– Large, easy-to-read volume display minimizes the risk of volume-setting errors

Thermal Insulation of Internal Components
– Improves accuracy in long pipetting series

Optiload for Perfect Tip Sealing on Multi-Channel Pipettes
– Allows tip loading with an equal constant force onto every channel
– Enables perfect tip sealing onto every individual tip cone
– Makes tip ejection light and easy

Safe-Cone Filters
– Prevent contamination
– In all models > 10 µl

Materials have High Chemical and UV-Resistance
– Highly durable and long lasting pipette

Fully Autoclavable without Disassembly
– Easy to steam-sterilize, improves purity

Only Three Parts to Disassemble
– Very easy to clean and maintain
– Improves purity and secures functionality

Proline® Plus – Specifications & Pricing

Model	Channels	Volume Range (µl)	Increment (µl)	Test Volume (µl)	System. Error (%)	Random Error (%)	Safe-Cone Filters Standard	Plus	Optifit Tips (µl)	SafetySpace™ Filter Tips (µl)	US List Price ($)
728010	1	0.1 – 3	0.002	3 1.5 0.3	1.30 2.40 10.00	0.80 1.60 6.00	–	–	10	10	240
728020	1	0.5 – 10	0.01	10 5 1	1.00 1.50 2.50	0.60 1.00 1.50	–	–	10	10	240
728030	1	2 – 20	0.02	20 10 2	0.90 1.20 3.00	0.40 1.00 2.00	721014	–	200	20	240
728040	1	5 – 50	0.10	50 25 5	1.00 1.40 3.00	0.30 0.50 1.50	721008	721018	200	120	240
728050	1	10 – 100	0.10	100 50 10	0.80 1.00 2.00	0.15 0.40 1.00	721008	721018	200 350	120	240
728060	1	20 – 200	0.20	200 100 20	0.60 0.80 2.00	0.15 0.30 0.80	721007	721017	200 350	200 300	240
728070	1	100 – 1000	1.00	1000 500 100	0.60 0.60 1.00	0.20 0.20 0.40	721006	721016	1000	1000	240
728080	1	500 – 5000	10.0	5000 2500 500	0.50 0.60 2.00	0.20 0.30 0.60	721005	721015	5000	–	240
728090	1	1 – 10 ml	20.0	10000 5000 1000	0.60 1.20 3.00	0.20 0.30 0.60	721005	721015	10 000	–	240
728120	8	0.5 – 10	0.01	10 5 1	1.50 2.50 4.00	1.00 2.50 4.00	–	–	10	10	655
728130	8	10 – 100	0.10	100 50 10	0.70 1.00 3.00	0.25 0.70 1.50	721008	721018	200 350	120	655
728140	8	30 – 300	0.20	300 150 30	0.60 1.00 2.00	0.25 0.50 1.00	721007	721017	350	300	655
728220	12	0.5 – 10	0.01	10 5 1	1.50 2.50 4.00	1.00 2.50 4.00	–	–	10	10	800
728230	12	10 – 100	0.10	100 50 10	0.70 1.00 3.00	0.25 0.70 1.50	721008	721018	200 350	120	800
728240	12	30 – 300	0.20	300 150 30	0.60 1.00 2.00	0.25 0.50 1.00	721007	721017	350	300	800

Proline® Plus FIXED Volume, Single-channel – Specifications & Pricing

Model	Channels	Volume (µl)	Increment (µl)	Test Volume (µl)	System. Error (%)	Random Error (%)	Safe–Cone Filters Standard	Safe-Cone Filters Plus	Optifit Tips (µl)	SafetySpace™ Filter Tips (µl)	US List Price ($)
728515	1 ⚪	5	–	5	1.30	1.20	–	–	10	10	180
728520	1 ⚪	10	–	10	0.80	0.80	–	–	10	10	180
728530	1 🟡	20	–	20	0.60	0.50	721014	–	200	20	180
728535	1 🟡	25	–	25	0.50	0.30	721008	721018	200	120	180
728545	1 🟡	50	–	50	0.50	0.30	721008	721018	200	120	180
728550	1 🟡	100	–	100	0.50	0.30	721008	721018	200 350	120	180
728560	1 🟡	200	–	200	0.40	0.20	721007	721017	200 350	200 300	180
728565	1 🔵	250	–	250	0.40	0.20	721006	721016	1000	500 1000	180
728567	1 🔵	500	–	500	0.30	0.20	721006	721016	1000	500 1000	180
728570	1 🔵	1000	–	1000	0.30	0.20	721006	721016	1000	1000	180
728575	1 🟢	2000	–	2000	0.30	0.15	721005	721015	5000	–	180
728580	1 🟢	5000	–	5000	0.30	0.15	721005	721015	5000	–	180
728590	1 🔴	10 ml	–	10000	0.60	0.20	721005	721015	10000	–	180

Accessories

Item	Description of Upgrade	US List Price ($)
725600	Carousel Stand for 6 pipettes	120
725610	Pipette Holder for one pipette	5
725620	Linear Stand	120
726203	Calibration tool | Tube opener	20
Pre–Delivery Calibration Certificates (for more info, see page 161)		
84JOP01	Single Channel 5.3 Calibration Mechanical Pipette	50
84JOP02	(8) Channel 5.3 Calibration Mechanical Pipette	78
84JOP10	(12) Channel 5.3 Calibration Mechanical Pipette	99
Extended Warranty (for more info, see page 166)		
84WAP01	12 months Mechanical Single Channel Pipette	89
84WAP02	12 months Mechanical (8) Channel Pipette	161
84WAP10	12 months Mechanical (12) Channel Pipette	187

Pipette Holder

Proline® Plus 5–Pack

With the Proline® Plus 5-Pack you can affordably replace your used mechanical pipettes with new ones or set up new workstations for every researcher. A set of five Proline® Plus mechanical pipettes, covering the volume range from 0.5 µl to 5000 µl, a Carousel Stand, 200 µl Optifit Tips and an Elbow Pad are included in the pack.

Proline® Plus 5-Pack – Specifications & Pricing

Item	Description	US List Price ($)
LH-728654	**Proline® Plus 5–Pack** – Proline® Plus pipettes 0.5–10 µl, 10–100 µl, 20–200 µl, 100–1000 µl, 500–5000 µl – Sartorius Optifit Tip tray box and Refill Tower 0.5–200 µl – Carousel Stand – Elbow Pad	885

Proline® Plus Starter Kits

Proline® Plus Starter Kits offer an opportunity to test and get started with Proline® Plus. You can choose between four Starter Kits, with two or three single-channel Proline® Plus pipettes. All kits include a range of useful accessories, such as a pipette holder and a calibration tool that also acts as a tube opener, as well as the required instructions.

Proline® Plus Starter Kits – Specifications & Pricing

Item	Description	US List Price ($)
728650	**Proline® Plus Starter Kit 1**	435
	– Proline® Plus 0.1-3 µl　　　　　– Pipette Holder x2 – Proline® Plus 0.5-10 µl　　　　– Calibration Tool │ Tuber Opener x2 – Optifit Tip 0.1-10 µl, Single Tray x2　– Literature	
728651	**Proline® Plus Starter Kit 2**	655
	– Proline Plus 0.5 – 10 µl　　　　– Optifit Tip 10 – 1000 µl, Single Tray – Proline Plus 10 – 100 µl　　　　– Pipette Holder x 3 – Proline Plus 100 – 1000 µl　　　– Calibration Tool │ Tube Opener x 3 – Optifit Tip 0.1 – 10 µl, Single Tray　– Literature – Optifit Tip 0.5 – 200 µl, Single Tray	
728652	**Proline® Plus Starter Kit 3**	655
	– Proline Plus 2 – 20 µl　　　　　– Optifit Tip 10 – 1000 µl, Single Tray – Proline Plus 20 – 200 µl　　　　– Pipette Holder x 3 – Proline Plus 100 – 1000 µl　　　– Calibration Tool │ Tube Opener x 3 – Optifit Tip 0.5 – 200 µl, Single Tray x 2　– Literature	
728653	**Proline® Plus Starter Kit 4**	435
	– Proline Plus 500 – 5000 µl　　　– Pipette Holder x 2 – Proline Plus 1000 – 10000 µl　　– Calibration Tool │ Tube Opener x 2 – Optifit Tip 100 – 5000 µl, Bulk　　– Literature – Optifit Tip 1 – 10 ml, Bulk	

Optifit Tips
Perfect Match to Sartorius Pipettes

In liquid handling, pipetting results are not dependent on the pipette or the tip alone, but a combination of these and the comfort of the user. Optifit Tips are designed and manufactured as a perfect fit for our pipettes, enabling maximal accuracy, precision and ergonomics. Manufacturing the tips in our own production facility allows us to maintain the highest quality and purity standards throughout the manufacturing process.

Features

– Perfect fitting and sealing with Sartorius pipettes
– Compatible also with most other pipette makes (see compatibility with other manufacturers' pipettes at www.sartorius.com)
– Manufactured using diamond polished molds to obtain even surface for enhanced sample recovery
– Packaging and purity options for all needs
– All tip packages, including individual racks, are lot numbered for full traceability
– The highest quality virgin polypropylene (PP) used as a raw material
– Color coding of the tip trays to match compatible Sartorius pipettes

Benefits

Reliable Results
– Perfect fitting and sealing with Sartorius pipettes guarantee the given pipette specifications
– All Sartorius tips are manufactured according to ISO 9001, ISO 14001 and ISO 13485 standards
– High Quality = correct shape, size, material, purity and uniformity
– Color coding of the tip trays allows easy matching with a suitable color coded Sartorius pipette

Sample Safety
– Manufactured in ISO Class 8 certified cleanroom conditions, using highly automated production to avoid contamination
– Every tip lot is tested by an external partner, and certified for being DNase, RNase and endotoxin free
– Autoclavable (20 minutes at 121 °C, 1 bar (15 psi)).
– Pre-sterilized tips are e-beam irradiated

Less Risk for RSI (repetitive strain injury)
– Compatible with Optiload feature in Sartorius Picus, eLINE®, mLINE® and Proline® Plus pipettes enabling ergonomic and light tip attachment and ejection

Optifit Tips, Refill Pack   Optifit Tips, Single Tray   Optifit Tips, Bulk in Box   Optifit Tips, Refill Tower   Optifit Tips, FlexiBulk

Optifit Tips – Specifications & Pricing

Model		Volume Range	Packaging	Pre-sterilized	Qty/Unit	US List Price ($)
790010	⬤	0.1 – 10 µl	Single Tray		10 × 96	75
790011			Single Tray	•	10 × 96	100
790012			Refill Tower		10 × 96	50
790013			Refill Pack	•	20 × 96	135
783210	⬤	0.1 – 10 µl	Single Tray	•	10 × 96	70
783211		Extended	Single Tray	•	10 × 96	80
790200	🟡	0.5 – 200 µl	Single Tray		10 × 96	63
790201			Single Tray	•	10 × 96	65
790202			Refill Tower		10 × 96	38
790203			Refill Pack	•	15 × 96	90
790350	🟠	5 – 350 µl	Single Tray		10 × 96	65
790351			Single Tray	•	10 × 96	90
790352			Refill Tower		10 × 96	45
790353			Refill Pack	•	15 × 96	80
791000	🔵	10 – 1000 µl	Single Tray		10 × 96	62
791001			Single Tray	•	10 × 96	81
791002			Refill Pack		10 × 96	38
791003			Refill Pack	•	10 × 96	60
791020	🔵	10 – 1000 µl	Single Tray		10 × 96	65
791021		Wide bore tip	Single Tray	•	10 × 96	86
791200	🟣	50 – 1200 µl	Single Tray		10 × 96	75
791201			Single Tray	•	10 × 96	95
791202			Refill Pack		10 × 96	50
791203			Refill Pack	•	10 × 96	70
791210	🟣	50 – 1200 µl	Single Tray		10 × 96	90
791211		Extended	Single Tray	•	10 × 96	115
791212			Refill Pack		10 × 96	110
791213			Refill Pack	•	10 × 96	130
780304	🟢	100 – 5000 µl	Single Tray		500	145
780305			Single Tray	•	500	175
780300			Bulk in Box		100	27
780308			Bulk in Carton		1000	145

Model	Volume Range (µl)	Length (mm)	Purity Level	Qty.	US List Price ($)
Optifit Tips, FlexiBulk					
LH-B790204	0.5-200	51	RNase, DNase, endotoxin free	960	69.50
LH-B790354	5-350	54	RNase, DNase, endotoxin free	960	65
LH-B791004	10-1000	71.5	RNase, DNase, endotoxin free	480	33
LH-B791024*	10-1000 WB	68.5	RNase, DNase, endotoxin free	480	38
LH-791204	50-1200	71.5	RNase, DNase, endotoxin free	480	33

* Tip with wide bore

Model	Volume Range (µl)	Length (mm)	Purity Level	Qty.	US List Price ($)
Optifit Tips, Standard bulk packages					
790014	0.1-10	31.5	-	1,000	35
780300	100-5000	150	-	100	26.80
780308	100-5000	150	-	1,000	145
LH-780316	1-10 ml	155	-	250	110

All Refill Pack and Single Tray packed tips are free of RNase, DNase and endotoxins.

Optifit Tips– FlexiBulk
New Tip Packaging Concept for Enhanced Usability of Bulk Tips

The FlexiBulk concept is a completely new approach to packing tips - something that has not been seen on the market before. This pack combines the low cost of bulk tips with saving space, improving usability and securing tip purity. Compared to traditional bulk packages, the stacked tip configuration offers you more advantages.

Features & Benefits

– Reduces up to 40% on pack volume
– Cuts packaging waste by nearly 50%
– Provides quick "pick & place" convenience for loading tips into tip racks or attachment to pipettes right out of the pack
– Ensures tip purity with lot-specific certificates

Save space with the compact package
The orderly arrangement of tips allows the FlexiBulk tip packs to be approximately 40% smaller than conventional bulk tip cartons, where tips are packed in random order. As a result, FlexiBulk gives you more space on your workbench.

Reduce the amount of waste
FlexiBulk reduces packaging waste by nearly 50% in comparison with a regular bulk carton with a plastic bag inside. How? FlexiBulk is small-sized and made of durable PET (polyethylene terephthalate) material that can be used and stacked as is – without any outer cardboard box needed. The environmentally friendly PET packs are also 100% suitable to be used as energy waste.

Save time and effort with the clever packaging concept
The well-organized FlexiBulk pack makes tip picking quicker and more convenient. You can pick a tip individually, for attaching directly to a pipette, or grab a handful for filling a tip rack. As a result, FlexiBulk enables you to save as much as 20% of the time it normally takes you to load tips into racks from randomly packed bulk packages.

Minimize the risk of contamination
FlexiBulk tips are certified to be free of RNase, DNase and endotoxins. The certified purity comes in handy, when you are working with a contamination critical application. The tips are produced and packaged under cleanroom conditions, and their manufacturing process is fully automated, which effectively eliminates contamination. In addition, the lid provides an airtight seal on the FlexiBulk pack, ensuring 100% cleanliness of the tips during transportation and storage. The convenient lid can be easily opened, and is reclosable to protect the tips from dust and dirt.

Specifications & Pricing

Model	Volume Range (µl)	Length (mm)	Purity Level	Qty.	US List Price ($)
Optifit Tips, FlexiBulk					
LH-B790204	0.5-200	51	RNase, DNase, endotoxin free	960	69.50
LH-B790354	5-350	54	RNase, DNase, endotoxin free	960	65
LH-B791004	10-1000	71.5	RNase, DNase, endotoxin free	480	33
LH-B791024*	10-1000 WB	68.5	RNase, DNase, endotoxin free	480	38
LH-791204	50-1200	71.5	RNase, DNase, endotoxin free	480	33
* Tip with wide bore					
Optifit Tips, Standard bulk packages					
790014	0.1-10	31.5	–	1,000	35
780300	100-5000	150	–	100	26.80
780308	100-5000	150	–	1,000	145
LH-780316	1-10 ml	155	–	250	110

SafetySpace Filter Tips
Improved Sample Safety

The SafetySpace Filter Tips are designed to prevent cross-contamination with the filter barrier and loss of sample with the unique safety air gap. The unique positioning of the filter leaves more space between the sample and the filter than in conventional filter tips. This allows pipetting any type of liquid or using any pipetting technique without the risk of the valuable sample permeating the filter. In effect, the SafetySpace™ Filter Tips ensure both minimized risk of sample contamination and better sample recovery, leading to improved sample safety in two ways.

Features

– Perfect fitting and sealing with Sartorius pipettes guarantee the given pipette specifications
– Compatible with most other pipette makes (see compatibility with other manufacturers' pipettes at www.sartorius.com)
– Manufactured using diamond polished molds to obtain even surface
– Tip packages, including individual racks, are lot numbered for full traceability
– All Sartorius tips are manufactured according to ISO 9001, ISO 14001 and ISO 13485 standards
– High Quality = correct shape, size, material, purity and uniformity
– Color coding of the tip trays allows easy matching with a suitable color coded Sartorius pipette

Applications

The Filter Tips are Most Useful in:
– Molecular Biology
– Microbiology
– Cell culture applications
– Radioactive samples

The SafetySpace Feature is Particularly Useful in the Following Applications, where Extra Space in the Tip is Needed:
– Pipetting foaming liquids such as buffers and proteins
– Pipetting solvents
– Multiple dispensing with electronic pipettes
– Reverse pipetting

Benefits

Reliable Results
– The safety air gap between the sample and the filter allows accurate results also for foaming liquids or solvents, which otherwise tend to easily penetrate the filter barrier and risk the result accuracy
– Extra space also enables safe use of all pipetting modes (reverse pipetting, multi-dispensing) without the risk of wetting the filter

Sample Safety
– The filter barrier and the extra space in the tip prevent cross-contamination from sample to sample
– The filters (PE) are made without "self-sealing" additives not to emit any particles that could interfere with the sample and the results
– Manufactured in ISO Class 8 certified cleanroom conditions, using highly automated production to avoid contamination
– Every tip lot is tested by an external partner, and certified for being DNase, RNase and endotoxin free
– E-beam irradiated for sterility

Less Risk for RSI (repetitive strain injury)
– Compatible with Optiload feature in Sartorius Picus® NXT, Picus®, eLINE®, mLINE® and Proline® Plus pipettes enabling ergonomic and light tip attachment and ejection

Specifications & Pricing

Model		Volume Range (µl)	Packaging	Pre-sterilized	Qty/Unit	US List Price ($)
790011F	⬤	0.1 – 10	Single Tray	•	10 × 96	150
790021F	⬤	0.5 – 20	Single Tray	•	10 × 96	150
790101F	⬤	2 – 120	Single Tray	•	10 × 96	150
790201F	⬤	5 – 200	Single Tray	•	10 × 96	150
790301F	⬤	5 – 300	Single Tray	•	10 × 96	150
791001F	⬤	50 – 1000	Single Tray	•	10 × 96	150
791211F	⬤	50 – 1200	Single Tray	•	10 × 96	180
Filter Tips with Regular Air Gap						
783201	⬤	0.1 – 10 Extended	Single Tray	•	10 × 96	165

All Single Tray packed tips are free of RNase, DNase and endotoxins

Low Retention Tips
Optimum Flow for Optimum Recovery

The Sartorius Low Retention Tips are a perfect companion for pipetting liquids with low surface tension - due to their very even hydrophobic surface, they leave next to no residue in the tip. In addition, the durable tip surface has high chemical resistance securing sample integrity.

The Low Retention Tips save your valuable reagents and secure reliable results with e.g. detergent containing samples in sensitive molecular biology applications. The low retention feature is available with a wide selection of Sartorius Optifit Tips (non-filtered) as well as with SafetySpace™ Filter Tips, with volumes from 10 µl to 1200 µl.

Features

– Manufactured using an advanced proprietary technology to obtain even liquid repellent surface
– Filtered and non-filtered Low Retention Tips available, the filter tips feature extra space between the sample and the filter
– Packaging and purity options for various needs
– Perfect fitting and sealing with Sartorius pipettes, matching color coding of tip trays
– Compatible also with most other pipette makes (see compatibility with other manufacturers' pipettes at www.sartorius.com)

Applications

Better sample recovery and reproducibility in pipetting are especially beneficial in sensitive molecular biology applications, where reagents often contain detergents, for example in:

– DNA|RNA techniques, e.g. PCR, real-time PCR, cloning, sequencing, RFLP
– Protein analysis & purification methods, e.g. SDS-PAGE
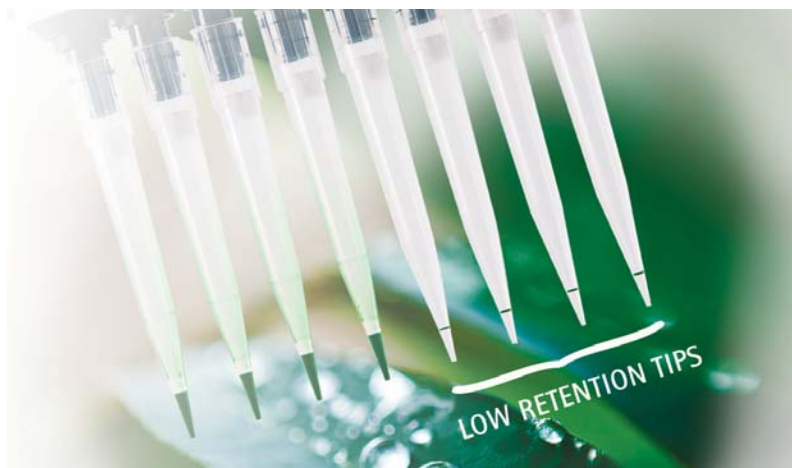
Benefits

Save Valuable Samples and Reagents
– Maximized sample recovery due to highly hydrophobic tip surface
– Up to 10 times less residue with detergents or other liquids with low surface tension

Reliable Results
– Improved consistency of results and sample recovery due to the highly even liquid repellent surface
– The safety air gap in filter tips allows accurate results also for foaming liquids or solvents, which otherwise tend to easily penetrate the filter barrier and risk the result accuracy
– All Sartorius tips are manufactured according to ISO 9001, ISO 14001 and ISO 13485 standards
– High Quality = correct shape, size, material, purity and uniformity

Sample Safety
– High chemical resistance secures the sample integrity
– The filter barrier and the extra space in the tip prevent cross-contamination from sample to sample
– The filters (PE) are made without "self-sealing" additives not to emit any particles that could interfere with the sample and the results
– Manufactured in ISO Class 8 certified cleanroom conditions, using highly automated production to avoid contamination
– Every tip lot is tested by an external partner, and certified for being DNase, RNase and endotoxin free
– Filter tips are e-beam irradiated for sterility
– All tip packages, including individual racks, are lot numbered for full traceability

Less Risk for RSI (Repetitive Strain Injury)
– Compatible with Optiload feature in Sartorius Picus® NXT, Picus®, eLINE®, mLINE® and Proline® Plus pipettes enabling ergonomic and light tip attachment and ejection

Low Retention Optifit Tips – Specifications & Pricing

Model		Volume Range (µl)	Packaging	RNase, DNase, endotoxin-free	Qty/Unit	US List Price ($)
LH-L790010	⬤	0.1 – 10	Single Tray	•	10 × 96	80
LH-L790012	⬤	0.1 – 10	Refill Tower		10 × 96	55
LH-L790200	⬤	0.5 – 200	Single Tray	•	10 × 96	75
LH-L790202	⬤	0.5 – 200	Refill Tower		10 × 96	47
LH-L790350	⬤	5 – 350	Single Tray	•	10 × 96	95
LH-L790352	⬤	5 – 350	Refill Tower		10 × 96	63
LH-L791000	⬤	10 – 1000	Single Tray	•	10 × 96	86
LH-L791200	⬤	50 – 1200	Single Tray	•	10 × 96	90
LH-L791210	⬤	50 – 1200	Single Tray	•	10 × 96	90

Low Retention SafetySpace™ Filter Tips – Specifications & Pricing

Model		Volume Range (µl)	Packaging	Pre-sterilized	Qty/Unit	US List Price ($)
LH-LF790011	⬤	0.1 – 10	Single Tray	•	10 × 96	167
LH-LF790021	⬤	0.5 – 20	Single Tray	•	10 × 96	167
LH-LF790101	⬤	2 – 120	Single Tray	•	10 × 96	167
LH-LF790201	⬤	5 – 200	Single Tray	•	10 × 96	167
LH-LF790301	⬤	5 – 300	Single Tray	•	10 × 96	167
LH-LF791001	⬤	50 – 1000	Single Tray	•	10 × 96	167
LH-LF791211	⬤	50 – 1200	Single Tray	•	10 × 96	185

All single tray packed SafetySpace™ Filter Tips are RNase, DNase and endotoxin-free.

Low Retention Tips, Single Tray

Low Retention Tips, Refill Tower

Midi Plus
Easy and Ergonomic Large-volume Pipetting

Midi Plus is a light-weight electronic pipette controller, which allows easy liquid aspiration from bottles and large tubes. Its ergonomic design helps to minimize the need for arm and hand raises that are often required while using serological or volumetric pipettes. In addition the electronic operation of Midi Plus reduces the needed finger force compared to a pipette-filler with a squeezable bulb. These qualities ease the workload in long periods of pipetting and protect you from repetitive strain injury (RSI).

Features & Benefits

Ergonomic Design Protects You From RSI (Repetitive Strain Injury)
– The ergonomic design helps to minimize the need for arm and hand raises that are often required while using serological or volumetric pipettes.
– The electronic operation reduces the needed finger force compared to a pipette-filler with a squeezable bulb

Stepless Speed Control for Accurate Dispensing
– Aspiration and dispensing speeds can easily be controlled by using the adjustment wheel or by adjusting finger pressure on the operating buttons
– The speed can be selected according to your application and pipette volume
– Possibility to dispense by the force of gravity for slow, drop-by-drop dispensing. Just by applying a very small force on the dispensing button
– Direct charging cable enables operation while charging

Compatible with a Wide Range of Pipettes and Tips
– Compatible with commonly used glass or plastic pipettes in the 1–100 ml volume range
– Compatible also with Sartorius 5 ml and 10 ml Optifit Tips that can be used when accuracy is not essential

Hydrophobic Filters Prevent Over-Aspiration
– The hydrophobic Sartorius filter prevents over-aspiration, which saves the pipette controller from contamination
– Filters are available as sterile and non-sterile, to match your purity requirements.

Note: Fold-out bench stand not available in units sold in North America.

Applications

– Cell culture
– Liquid preparation in large volumes

Midi Plus & Accessories –
Specifications & Pricing

Item	Description	US List Price ($)
710929	Midi Plus™ (Model for North America)	345
LH-7129120	Replacement filter, 0.45 µm, non-sterile, autoclavable, 5 pcs	34
LH-7129130	Replacement filter, 0.2 µm, sterile, 5 pcs	11
LH-711019	Adapter set (standard) including nose-cone and the silicone adapter	60
LH-711017	Adapter set for 5 ml pipette tip, autoclavable, including nose-cone and the silicone adapter	60
LH-711018	Adapter set for 10 ml pipette tip, autoclavable, including nose-cone and the silicone adapter	60
780300	Optifit Tip 5 ml, 100 pcs	27
780308	Optifit Tip 5 ml, 1000 pcs	145
780310	Optifit Tip 10 ml (extra long tip for Midi Plus), 100 pcs	55

Optifit
Refill Tips
200 μl
10 x 96
Cat.No. 790202

sartorius

Safe-Cone Filters
Prevent Cross-contamination

The replaceable Safe-Cone Filters act as a final barrier to prevent any fluids and liquid vapors from reaching the internal components of the pipette.

The filters are available in two types for all pipette volumes greater than 10 µl: self-sealing Plus Filters and Standard Filters. The filters are made of polyethylene (PE).

Tweezers for exchanging filters in pipettes are included with every pipette package excluding mLINE®.
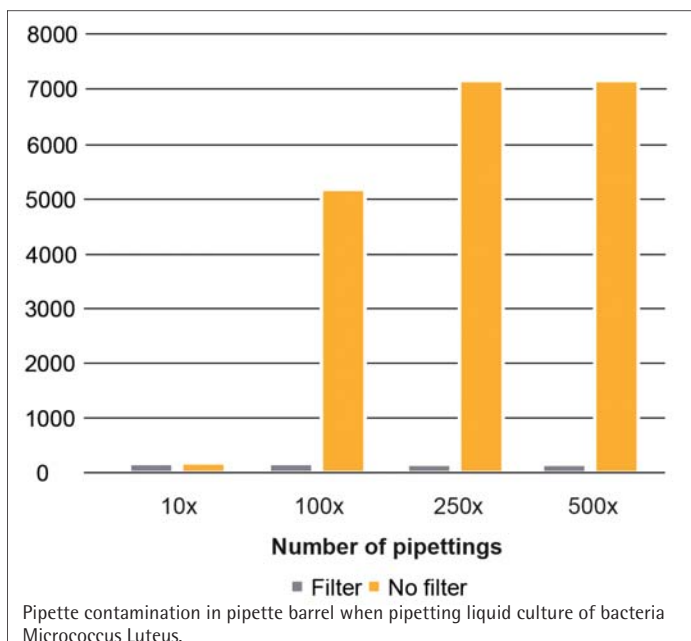
Features

– Protect the pipette and sample from contamination
– Prolong the pipette's lifetime
– Reduce maintenance intervals
– Are cost-effective

Applications

The Safe-Cone Filters are available in two types to serve various needs and applications:
– Self-sealing Plus Filters are to be used for more demanding applications such as radioactive work, cell culture, bacterial and virological work and molecular biology.
– Standard Filter for general applications. Can also be used for similar applications as the Plus Filter, but then needs to be changed more frequently.

Contamination in Pipette Barrel

Number of Pipettings	No Filter	Safe-Cone Filter
50	–	–
100	+	–
250	++	–
500	+++	–

+: DNA (50 µl plasmid DNA 120 µg/ml) contamination in pipette barrel.

Specifications & Pricing

Model	Description	Qty/Unit	US List Price ($)
721008	Standard ∅ 2.51 mm PE	50	14
721007	Standard ∅ 3.15 mm PE	50	14
721006	Standard ∅ 5.33 mm PE	50	14
721005	Standard ∅ 6.73 mm PE	50	14
721014	Standard ∅ 1.83 mm PE	50	14
721018	Plus ∅ 2.51 mm PE	50	33
721017	Plus ∅ 3.15 mm PE	50	33
721016	Plus ∅ 5.33 mm PE	50	33
721015	Plus ∅ 6.73 mm PE	50	33

Pipette contamination in pipette barrel when pipetting liquid culture of bacteria Micrococcus Luteus.

Accessories
Ease Your Pipetting Work

The pipetting accessories are designed to ease your work.

The **Elbow Pad** helps you to feel more comfortable while pipetting, especially in long pipetting series. The viscoelastic material of the pad relieves contact stress, pain and discomfort under your elbow.

The **Reagent Vessel** is designed for easy liquid aspiration with multi-channel pipettes due to its suitable width. Made of polypropylene, the autoclavable and durable liquid reservoir is chemically resistant to all common reagents.

Elbow Pad

Reagent Vessel

Elbow Pad Features

– Improves pipetting ergonomics
– Forms according to any elbow size or shape
– Coating is pleasant to the skin
– The compact size takes up little desk space
– Very durable
– Easy to clean with washing up liquid, or ethanol (70 %)

Accessories

Item	Description	Qty/Unit	US List Price ($)
723103	Elbow Pad	1	76
783500	Reagent Vessel (capacity 120 ml)	16	58

arium® pro Ultrapure Water Systems
arium® pro for Highest Consistent Water Quality

arium® pro ultrapure water systems meet and exceed ASTM Type 1 water quality at unmatched cost of ownership for any application. Available in a choice of different modular systems, it offers the widest selection of features and options for customized configuration. The glass display with touch-activated functions and intuitive menu navigation ensures error-free operation, even while you are wearing gloves.

Features & Benefits

Five Systems to Choose
Allows to configure the system by application for individual needs.

Optimized Components and Cartridge Materials
Guarantees a long service life and maximize water purification.

High Efficiency UV Lamp (185/254 nm) & TOC Monitoring
Eliminates bacteria and organics for reliable high water quality and reproducible results.

Display with Touch-Function and Intuitive Menu Navigation
Ensures an easy operation in any situation even with gloves.

Integrated Real Time Monitoring
Allows to control water quality without extra costs for reproducible results.

High System Flexibility
Saves maximum space in limited lab environments and ensures optimal operation at eye level.

Applications

– HPLC
– GC-MS, AAS, ICP-MS
– Ion chromatography
– TOC analysis
– PCR
– Electrophoresis
– Endotoxin analysis
– Immunocytochemistry
– Nutrient media for cell culture
– Production of monoclonal antibodies
– Photometry

arium® pro – Specifications & Pricing

Model	Qty.	Description	US List Price ($)
H2Obasic-T	1	pro Bench-Top System	4,200
H2Obasic-B	1	pro Wall-Mounted System incl. Wall Bracket for the system	4,200
H2Opro-DI-T	1	pro DI Bench-Top System	5,700
H2Opro-DI-B	1	pro DI Wall-Mounted System incl. Wall Bracket for the system	5,700
H2Opro-UF-T	1	pro UF Bench-Top System, incl. Ultrafilter	6,650
H2Opro-UF-B	1	pro UF Wall-Mounted System incl. wall bracket for the system and Ultrafilter	6,650
H2Opro-UV-T	1	pro UV Bench-Top System, incl. UV Lamp	6,900
H2Opro-UV-T-TOC	1	pro UV Bench-Top System, incl. UV Lamp and TOC Monitor	8,300
H2Opro-UV-B	1	pro UV Wall-Mounted System incl. Wall Bracket for the system and UV Lamp	6,900
H2Opro-UV-B-TOC	1	pro UV Wall-Mounted System incl. Wall Bracket for the system, UV Lamp and TOC Monitor	8,300
H2Opro-VF-T	1	pro VF Bench-Top System, incl. UV Lamp and Ultrafilter	7,700
H2Opro-VF-T-TOC	1	pro VF Bench-Top System, incl. UV Lamp, Ultrafilter and TOC Monitor	9,000
H2Opro-VF-B	1	pro VF Wall-Mounted System incl. Wall Bracket for the system, UV Lamp and Ultrafilter	7,700
H2Opro-VF-B-TOC	1	pro VF Wall-Mounted System incl. Wall Bracket for the system, UV Lamp, Ultrafilter and TOC Monitor	9,000

Consumables

Model	Qty.	Description	Maintenance Interval	US List Price ($)
H2O-A-PACK	1	Analytical Kit for arium® pro VF & pro UV Ultrapure Water Systems	as needed or 1 yr.	705
H2O-B-PACK	1	Biological Kit for arium® pro UF Ultrapure Water Systems	as needed or 1 yr.	705
H2O-E-PACK	1	Elemental Kit for arium® basic & pro DI Ultrapure Water Systems	as needed or 1 yr.	705
H2O-U-PACK	1	Universal Kit for arium® Ultrapure Water Systems with Tap Water Feed	as needed or 1 yr.	445
5441307H4--CE--B	5	Sterile Final Filter	30 days	315
611CDU5	1	Ultrafilter	1 year	970
611CEL1	1	UV Lamp	1 year	165
611CDS1	1	Sanitization Syringe	3 months	41

Accessories

Model	Qty.	Description	US List Price ($)
H2Opro-AMDG1	1	arium® Dispense Gun incl. Height-Adjustable Stand	1,025
H2Opro-AMDG2	1	arium® Dispense Gun incl. Wall Mounting Kit	630
H2Opro-ADM1	1	arium® Display Mounting Kit for arium® Built-In System	720
H2O-ADD	1	arium® Multifunction Stand for arium® Built-In Systems	1,340
611APR1	1	Ink-Jet-Printer for Data Collection	780
H2O-AFS1	1	Footswitch for External Control of the Time|Volume Dispense	315
H2O-ALS1	1	Level Sensors for the Connection of arium® H2Opro Systems to an Open Gravity Tank	360
610AWG1	1	Water Guard	565
H2O-ACK-D	1	Conversion Kit for Below Bench Mounting or Remote Displays.	670

arium® Type 2 Pure Water Systems

arium® advance EDI the Ultimate Reliable Type 2 Pure Water System

First-class Type II water: The arium® advance EDI Type 2 water system features the highest ion retention at production rates of up to 10 l/h. Directly from potable feed water source, the system produces the pure water at consistent highest quality at values of 5 to 15 Ω.cm. Its proprietary, unique EDI technology combined with the innovative iJust function optimizes your water consumption and ensures a time and labor-saving operation over long periods.

Features & Benefits

Unique EDI Technology
Ensures reliably, high Type 2 water quality for consistent analytical results.

iJust
Optimizes product water quality and water consumption based on the individual feed water condition.

arium® bagtank
Saves maintenance time and avoids handling with chemical cleaning agents for safe and secure daily operation.

First-Rate RO Module Equipment
Reduces investment costs and saves time for fast and easy installation.

High System Flexibility
Saves maximum space in limited lab environments and ensures optimal operation at eye level.

Visual SOP Monitoring
Always allows an easy and safe operation by displaying all important information at a glance.

Display with Touch-Function and Intuitive Menu Navigation
Ensures an easy operation in any situation even with gloves.

Applications

– Microbiological media and reagents
– Solutions for chemical analysis and synthesis
– Histology
– ELISA, RIA
– Buffers and pH solutions
– Feed water for laboratory devices, such as autoclaves, glassware washers, humidifiers, water baths, etc.

arium® EDI

arium® advance EDI –Specifications & Pricing

Model	Qty.	Description	US List Price ($)
H2O-EDI-1-T	1	advance EDI Benchtop System, Type 2 Product Water Flow Rate 5 l/h	6,085
H2O-EDI-1-B	1	advance EDI 5 l/h	6,085
H2O-EDI-2-T	1	advance EDI Bench-Top System, Type 2 Product Water Flow Rate 10 l/h	8,000
H2O-EDI-2-B	1	advance EDI Wall-Mounted System, incl. Wall Bracket, Type 2 Product Water Flow Rate 10 l/h	8,000

Consumables

Item	Qty.	Description	Maintenance Interval	US List Price ($)
613CPF05--------V	2	Pre-Filter	3 months	510
H2O-CRO-H-2	2	RO Modules for advance EDI	as needed or 2 yrs.	1,440
H2O-CRO-H-1	1	RO Module for advance EDI	as needed or 2 yrs.	750
H2O-CSO	2	Softener Cartridges	6 months	125
H2O-CCS	1	Cleaning Set	3 months or iJust recommendation	77
H2O-CBS-20	2	20L bag for bagtank 20	6 months	100
H2O-CBS-50	2	50L bag for bagtank 50 & 100	6 months	125
5441307H4--CE--B	5	Sterile Final Filter	30 days	315

Accessories

Item	Qty.	Description	US List Price ($)
H2O-AOV-20	1	20L bagtank	1,700
H2O-AOV-50-US	1	50L bagtank incl. 115 VAC, 60 Hz Distribution Pump	2,465
H2O-AOV-100-US	1	100L bagtank incl.115 VAC, 60 Hz Distribution Pump	3,085
H2O-ADP-20-US	1	Distribution Pump for 20 l bagtank, 115 VAC, 60 Hz	545
H2O-ATR	4	Rollers for bagtank 50L & 100L	125
H2O-ATB	1	Wall Bracket for bagtank 20L	206
610AWG1	1	Water Guard	565
613-AMDG1	1	Dispense Gun with Height Adjustable Stand	1,005
613-AMDG2	1	Dispense Gun with Wall Bracket	540
H2O-ACK-D	1	Conversion Kit for Below Bench Mounting or Remote Displays	670

arium® Type 3 Reverse Osmosis Pure Water Systems

First-class Type 3 Reverse Osmosis Water

arium® advance RO features the highest ion retention at production rates of up to 24 l/h. Directly connected to the potable feed water source, the system produces the pure water at highest quality. Its outstanding RO technology combined with the innovative iJust function optimizes your water consumption and ensures a time and labor-saving operation over long periods.

Features & Benefits

iJust
Optimizes product water quality and water consumption based on the individual feed water condition.

arium® bagtank
Saves maintenance time and avoids handling with chemical cleaning agents for safe and secure daily operation.

First-Rate RO Module Equipment
Reduces investment costs and saves time for fast and easy installation.

High System Flexibility
Saves maximum space in limited lab environments and ensures optimal operation at eye level.

Visual SOP Monitoring
Always allows an easy and safe operation by displaying all important information at a glance.

Display with Touch-Function and Intuitive Menu Navigation
Ensures an easy operation in any situation even with gloves.

Applications

- Feed water for ultrapure water systems
- Rinsing glassware and laboratory vessels
- Feed water for diverse laboratory, e.g. humidifiers, autoclaves and dishwasher

advance RO

arium® bagtanks

arium® advance RO – Specifications & Pricing

Model	Qty.	Description	US List Price ($)
H2O-RO-1-T	1	advance RO Bench-Top System, Type 3 Product Water Flow Rate, 8 l/h	5,400
H2O-RO-1-B	1	advance RO Wall-Mounted System, Type 3 Product Water Flow Rate 8 l/h	5,500
H2O-RO-2-T	1	advance RO Bench-Top System, Type 3 Product Water Flow Rate 16 l/h	6,200
H2O-RO-2-B	1	advance RO Wall-Mounted System, incl. Wall Bracket, Type 3 Product Water Flow Rate 16 l/h	6,200
H2O-RO-3-T	1	advance RO Bench-Top System, Type 3 Product Water Flow Rate 24 l/h	7,000
H2O-RO-3-B	1	advance RO Wall-Mounted System, incl. Wall Bracket, Type 3 Product Water Flow Rate 24 l/h	7,100

Consumables

Item	Qty.	Description	Maintenance Interval	US List Price ($)
613CPF05--------V	2	Pre-Filter	3 months	510
613CPM4	1	RO Module for advance RO & comfort I	as needed or 2 yrs.	750
613CPM4--------V	2	RO Modules for advance RO & comfort I	as needed or 2 yrs.	1,440
H2O-CCS	1	Cleaning Set	3 months or iJust recommendation	77
H2O-CBS-20	2	20L bag for bagtank 20	6 months	100
H2O-CBS-50	2	50L bag for bagtank 50 & 100	6 months	125
5441307H4--CE--B	5	Sterile Final Filter	30 days	315

Accessories

Item	Qty.	Description	US List Price ($)
H2O-AOV-20	1	20L Bagtank	1,700
H2O-ADP-20-US	1	Distribution Pump for 20 l bagtank, 115 VAC, 60 Hz	545
H2O-AOV-50-US	1	50L Bagtank incl. 115 VAC, 60 Hz Distribution Pump	2,465
H2O-AOV-100-US	1	100L Bagtank incl. 115 VAC, 60 Hz Distribution Pump	3,085
H2O-ATR	4	Rollers for Bagtank 50L & 100L	125
H2O-ATB	1	Wall Bracket for bagtank 20L	206
610AWG1	1	Water Guard	565
613-AMDG1	1	Tank Dispense Gun with Hight Adjustable Stand	1,005
613-AMDG2	1	Tank Dispense Gun with Wall Bracket	540
H2O-ACK-D	1	Conversion Kit for Below Bench Installation or Remote Display	670

For extended warranty and service options, please refer to page 178.

arium® comfort I Combined Water Systems

arium® comfort I All-in-One System

The arium® comfort I delivers ASTM Type 1 ultrapure and Type 3 pure water all in one system. Directly connected to the potable feed water source the system uses outstanding RO technology combined with a unique ion exchange cartridge to produce consistent final water quality at the highest level. Additionally the innovative iJust function optimizes your water consumption and ensures a time and labor-saving operation over a long period.

Features & Benefits

iJust
Optimizes product water quality and water consumption based on the individual feed water condition.

arium® bagtank
Saves maintenance time and avoids handling with chemical cleaning agents for safe and secure daily operation.

First-Rate RO Module Equipment
Reduces investment costs and saves time for fast and easy installation.

High System Flexibility
Saves maximum space at limited lab environment and ensures always best operation at eye level.

Highest Water Quality
Guarantees reproducible results for critical, analytical applications.

Visual SOP Monitoring
Always alows an easy and safe operation by displaying all important information at a glance.

Display with Touch-Function and Intuitive Menu Navigation
Ensures an easy operation in any situation even with gloves.

Applications

– HPLC
– GC-MS, AAS, ICP-MS
– Ion chromatography
– TOC-Analysis
– Photometry
– Buffer and pH-solutions
– Feed water for ultrapure water systems
– Rinsing glassware and laboratory vessels
– Feed water for diverse laboratory, e.g. humidifiers, autoclaves and dish washer

arium® comfort I Combined Water Systems – Specifications & Pricing

Model	Qty.	Description	US List Price ($)
H2O-I-1-T	1	comfort I Bench-Top System, Type 3 Product Water Flow Rate 8 l/h	6,400
H2O-I-1-B	1	comfort I Wall-Mounted System, incl. Wall Bracket, Type 3 Product Water Flow Rate 8 l/h	6,500
H2O-I-1-UV-T	1	comfort I Bench-Top System with UV, Type 3 Product Water Flow Rate 8 l/h	6,700
H2O-I-1-UV-B	1	comfort I Wall-Mounted System, incl. Wall Bracket, UV, Type 3 Product Water Flow Rate 8 l/h	6,800
H2O-I-1-TOC-T	1	comfort I Bench-Top System with UV & TOC, Type 3 Product Water Flow Rate 8 l/h	7,500
H2O-I-1-TOC-B	1	comfort I Wall-Mounted System, incl. Wall Bracket, UV & TOC, Type 3 Product Water Flow Rate 8 l/h	7,600
H2O-I-2-T	1	comfort I Bench-Top System, Type 3 Product Water Flow Rate 16 l/h	7,500
H2O-I-2-B	1	comfort I Wall-Mounted System, incl. Wall Bracket, Type 3 Product Water Flow Rate 16 l/h	7,600
H2O-I-2-UV-T	1	comfort I Bench-Top System UV, Type 3 Product Water Flow Rate 16 l/h	7,800
H2O-I-2-UV-B	1	comfort I Wall-Mounted System, incl. Wall Bracket, UV, Type 3 Product Water Flow Rate 16 l/h	7,900
H2O-I-2-TOC-T	1	comfort I Bench-Top System with UV & TOC, Type 3 Product Water Flow Rate 16 l/h	9,375
H2O-I-2-TOC-B	1	comfort I Wall-Mounted System, incl. Wall Bracket, UV & TOC, Type 3 Product Water Flow Rate 16 l/h	9,375

Consumables

Item	Qty.	Description	Maintenance Interval	US List Price ($)
H2O-CPF	2	Pre-Filter	3 months	391
613CPM4	1	RO Module for advance RO & comfort I	as needed or 2 yrs.	750
613CPM4--------V	2	RO Modules for advance RO & comfort I	as needed or 2 yrs.	1,440
H2O-C-Pack	1	comfort Ultrapure Water Cartridge	as needed or 1 yr.	435
611CEL1	1	UV Lamp	1 year	165
H2O-CCS	1	Cleaning Set	3 months or iJust recommendation	77
H2O-CBS-20	2	20L bag for bagtank 20	6 months	100
H2O-CBS-50	2	50L bag for bagtank 50 & 100	6 months	125
5441307H4--CE--B	5	Sterile Final Filter	30 days	315

Accessories

Item	Qty.	Description	US List Price ($)
H2O-AOV-20	1	20L Bagank	1,700
H2O-ADP-20-US	1	Distribution Pump for 20L bagtank, 115 VAC, 60 Hz	545
H2O-AOV-50-US	1	50L Bagtank incl. 115 VAC, 60 Hz Distribution Pump	2,465
H2O-AOV-100-US	1	100L Bagtank incl.115 VAC, 60 Hz Distribution Pump	3,085
H2O-ATR	4	Rollers for Bagtank 50L & 100L	125
H2O-ATB	1	Wall Bracket for Bagtank 20L	206
611APR1	1	Printer	780
610AWG1	1	Water Guard	565
613-AMDG1	1	Tank Dispense Gun with Height Adjustable Stand	1,005
613-AMDG2	1	Tank Dispense Gun with Wall Bracket	540
H2Opro-AMDG1	1	Dispense Gun with Height Adjustable Stand	1,025
H2Opro-AMDG2	1	Dispense Gun with Wall Bracket	630
H2Opro-ADM1	1	Height Adjustable Display Stand	720
H2Opro-ADD	1	Multifunction Stand	1,300
H2O-AFS1	1	Foot Switch	315
H2O-ACK-D	1	Conversion Kit for Under Bench Mounting or Remote Display	670

arium® comfort II Combined Water Systems

arium® comfort II Water Purification with Added Value

The arium® comfort II delivers ASTM Type 1 ultrapure and Type 2 pure water all in one system. Directly connected to your potable feed water source the system uses proprietary EDI technology combined with a unique ion exchange cartridge to produce consistent final water quality at the highest level. Additionally the innovative iJust function optimizes your water consumption and ensures a time and labor-saving operation over a long period.

Features & Benefits

Unique EDI Technology
Reliably, high Type 2 water quality for consistent analytical results.

iJust
Optimizes product water quality and water consumption based on the individual feed water condition.

arium® bagtank
Saves maintenance time and avoids handling with chemical cleaning agents for safe and secure daily operation.

First-Rate RO Module Equipment
Reduces investment costs and saves time for fast and easy installation.

High System Flexibility
Saves maximum space in limited lab environments and ensures optimal operation at eye level.

Highest Water Quality
Guarantees reproducible results for critical, analytical applications.

Visual SOP Monitoring
Always allows an easy and safe operation by displaying all important information at a glance.

Display with Touch-Function and Intuitive Menu Navigation
Ensures an easy operation in any situation even with gloves.

Applications

– HPLC
– AAS
– Ion chromatography
– Photometry
– Microbiological media and reagents
– Histology
– ELISA, RIA
– Buffers and pH solutions
– Feed water for laboratory devices, such as autoclaves, glassware washers, humidifiers, water baths, etc.

arium® comfort II – Specifications & Pricing

Model	Qty.	Description	US List Price ($)
H2O-II-1-T	1	comfort II Bench-Top System, Type 2 Product Water Flow Rate 5 l/h	12,150
H2O-II-1-UV-T	1	comfort II Bench-Top System with UV, Type 2 Product Water Flow Rate 5 l/h	12,950
H2O-II-1-TOC-T	1	comfort II Bench-TopSystem with UV & TOC Monitor, Type 2 Product Water Flow Rate 5 l/h	14,250
H2O-II-1-B	1	comfort II Wall-Mounted System,Type 2 Product Water Flow Rate 5 l/h	12,150
H2O-II-1-UV-B	1	comfort II Wall-Mounted System with UV, Type 2 Product Water Flow Rate 5 l/h	12,950
H2O-II-1-TOC-B	1	comfort II Wall-Mounted System with UV & TOC Monitor, Type 2 Product Water Flow Rate 5 l/h	14,250
H2O-II-2-T	1	comfort II Bench-Top System without UV & TOC, Type 2 Product Water Flow Rate 10 l/h	18,900
H2O-II-2-TOC-T	1	comfort II Bench-Top System with UV & TOC, Type 2 Product Water Flow Rate 10 l/h	20,550
H2O-II-2-UV-T	1	comfort II Bench-Top System with UV, Type 2 Product Water Flow Rate 10 l/h	19,100
H2O-II-2-B	1	comfort II Wall-Mounted System without UV & TOC, Type 2 Product Water Flow Rate 10 l/h	18,900
H2O-II-2-UV-B	1	comfort II Wall-Mounted System with UV, Type 2 Product Water Flow Rate 10 l/h	19,200
H2O-II-2-TOC-B	1	comfort II Wall-Mounted System with UV & TOC, Type 2 Product Water Flow Rate 10 l/h	20,550

Consumables

Item	Qty.	Description	Maintenance Interval	US List Price ($)
H2O-CPF	2	Pre-Filter	3 months	391
H2O-CRO-H-1	1	RO Module for advance EDI & comfort II	as needed or 2 yrs.	750
H2O-CRO-H-2	2	RO Modules for advance EDI & comfort II	as needed or 2 yrs.	1,440
H2O-CSO	2	Softener Cartridges	3 months	125
H2O-C-Pack	1	Comfort Ultrapure Water Cartridge	as needed or 1 yr.	435
611CEL1	1	UV Lamp	1 year	165
H2O-CCS	1	Cleaning Set	3 months or iJust recommendation	77
H2O-CBS-20	2	20L bag for bagtank 20	6 months	100
H2O-CBS-50	2	50L bag for bagtank 50 & 100	6 months	125
5441307H4--CE--B	5	Sterile Final Filter	30 days	315

Accessories

Item	Qty.	Description	US List Price ($)
H2O-AOV-20	1	20L Bagtank	1,700
H2O-AOV-50-US	1	50L Bagtank incl. 115 VAC, 60 Hz Distribution Pump	2,465
H2O-AOV-100-US	1	100L Bagtank incl. 115 VAC, 60 Hz Distribution Pump	3,085
H2O-ADP-20-US	1	Distribution Pump for 20L bagtank, 115 VAC, 60 Hz	545
H2O-ATR	4	Rollers for bagtank 50L & 100L	125
H2O-ATB	1	Wall Bracket for bagtank 20L	206
611APR1	1	Printer	780
610AWG1	1	Water Guard	565
613-AMDG1	1	Dispense Gun with Height Adjustable Stand	1,005
613-AMDG2	1	Dispense Gun with Wall Bracket	540
H2Opro-AMDG1	1	Dispense Gun with Height Adjustable Stand	1,025
H2Opro-AMDG2	1	Dispense Gun with Wall Bracket	630
H2Opro-ADM1	1	Height Adjustable Display Stand	720
H2Opro-ADD	1	Multifunction Stand	1,300
H2O-AFS1	1	Foot Switch	315
H2O-ACK-D	1	Conversion Kit for Under Bench Mounting or Remote Display	670

Vivaspin® Centrifugal Concentrators

Flexible and Efficient Protein Concentration

Vivaspin products offer a comprehensive range of fast protein concentration devices from 0.5 ml to 20 ml volume capacity. The large range of different molecular weight cut offs, from 2 kDa to 1000 kDa and 0.2μm offer a solution to every concentration need. Unique Vivaspin 20 can be pressurized and centrifuged simultaneously for processing difficult samples.

Features & Benefits

Dead stop pocket
Guaranteed sample recovery – no risk of concentrating to dryness

Unique housing design feature
Collection tube fit under concentrator body for increased sample volume acceptance in Vivaspin 6 and Vivaspin 20

Vertical membrane configuration
Fast sample concentration

Flexibility
Easy to find the perfect ultrafiltration for your application due to large selection. Widest volume capacity range and membrane cut off selection.

Vivaspin 500
100 -500μl

Vivaspin 2
0.4 - 2ml

Vivaspin 6
2 - 6 ml

Vivaspin 15R
4 - 15ml

Vivaspin 20
6 - 20ml

Applications

– Protein concentration
– Virus concentration
– Nanoparticle concentration
– Sample desalting / diafiltration

Specifications & Pricing

Model	Molecular Weight Cut-Off (MWCO) in daltons	Qty. PK	US List Price ($)
Vivaspin 500 – Polyethersulfone			
VS0191	3,000	25	102
VS0192	3,000	100	360
VS0115	5,000	25	102
VS0112	5,000	100	360
VS0101	10,000	25	102
VS0102	10,000	100	360
VS0121	30,000	25	102
VS0122	30,000	100	360
VS0131	50,000	25	102
VS0132	50,000	100	360
VS0141	100,000	25	102
VS0142	100,000	100	360
VS0151	300,000	25	102
VS0152	300,000	100	360
VS0161	1,000,000	25	102
VS0162	1,000,000	100	360
VS0171	0.2μm	25	102
VS0172	0.2μm	100	360
VS01S1	5 each of 5,000/10,000/ 30,000/50,000/100,000	25	100

See page 99 for Accessories

Specifications & Pricing

Model	Molecular Weight Cut-Off (MWCO) in daltons	Qty. PK	US List Price ($)
Vivaspin 2 – Polyethersulfone			
VS0291	3,000	25	116
VS0292	3,000	100	405
VS0211	5,000	25	116
VS0212	5,000	100	405
VS0201	10,000	25	116
VS0202	10,000	100	405
VS0221	30,000	25	116
VS0222	30,000	100	405
VS0231	50,000	25	116
VS0232	50,000	100	405
VS0241	100,000	25	116
VS0242	100,000	100	405
VS0251	300,000	25	116
VS0252	300,000	100	405
VS0261	1,000,000	25	116
VS0262	1,000,000	100	405
VS0271	0.2µm	25	116
VS0272	0.2µm	100	405
VS02S1	5 each of 5,000/10,000/ 30,000/50,000/100,000	25	116
Vivaspin 2 – Cellulose Triacetate			
VS02U1	5,000	25	116
VS02U2	5,000	100	405
VS02V1	10,000	25	116
VS02V2	10,000	100	405
VS02X1	20,000	25	116
VS02X2	20,000	100	405
Vivaspin 2 – Hydrosart			
VS02H91	2,000	25	125
VS02H92	2,000	100	415
VS02H11	5,000	25	12
VS02H12	5,000	100	415
VS02H01	10,000	25	125
VS02H02	10,000	100	415
VS02H21	30,000	25	125
VS02H22	30,000	100	415

Model	Molecular Weight Cut-Off (MWCO) in daltons	Qty. PK	US List Price ($)
Vivaspin 6 – Polyethersulfone			
VS0691	3,000	25	131
VS0692	3,000	100	430
VS0611	5,000	25	131
VS0612	5,000	100	430
VS0601	10,000	25	131
VS0602	10,000	100	430
VS0621	30,000	25	131
VS0622	30,000	100	430
VS0631	50,000	25	131
VS0632	50,000	100	430
VS0641	100,000	25	131
VS0642	100,000	100	430
VS0651	300,000	25	131
VS0652	300,000	100	430
VS0661	1,000,000	25	131
VS0662	1,000,000	100	430
VS0671	0.2µm	25	131
VS0672	0.2µm	100	430
VS06S1	5 each of 5,000/10,000/ 30,000/50,000/100,000	25	131
Vivaspin 15R – Polyethersulfone			
VS15RH91	2,000	12	115
VS15RH92	2,000	48	390
VS15RH11	5,000	12	115
VS15RH12	5,000	48	390
VS15RH01	10,000	12	115
VS15RH02	10,000	48	390
VS15RH21	30,000	12	115
VS15RH22	30,000	48	390
Vivaspin 20 – Polyethersulfone			
VS2091	3,000	12	131
VS2092	3,000	48	465
VS2011	5,000	12	131
VS2012	5,000	48	465
VS2001	10,000	12	131
VS2002	10,000	48	465
VS2021	30,000	12	131
VS2022	30,000	48	465
VS2031	50,000	12	131
VS2032	50,000	48	465
VS2041	100,000	12	131
VS2042	100,000	48	465
VS2051	300,000	12	131
VS2052	300,000	48	465
VS2061	1,000,000	12	131
VS2062	1,000,000	48	465
VS2071	0.2 µm	12	131
VS2072	0.2 µm	48	465
VS20S1	2 each of 5,000/10,000/ 30,000/ 50,000/ 100,000	12	131

Vivaspin® Turbo Centrifugal Concentrators

High Speed & Recovery Protein Concentration

Vivaspin® Turbo 4 and 15 centrifugal concentrators, disposable ultrafiltration units, for processing sample volumes of 2 – 4 ml and 15 ml, Polyethersulfone UF membrane. A new innovative design offers fastest concentration with low binding and pH resistant housing material. A patent pending angular dead stop pocket not only prevents centrifuging to dryness but also supports highest recoveries due to easy concentrate recovery by a pipette.

Features & Benefits

Twin vertical membranes assembled in an optimized design
Fastest ultrafiltration device on the market for high speed protein concentration -saves time and retains protein activity.

Unique angular dead stop pocket
Patent pending angular design guarantees complete sample recovery with a pipette, while eliminating the risk of concentrating to dryness.

Low binding and pH resistant polystyrene housing material
Neglectable unspecific binding, leading to high recoveries, combined with highest chemical compatibility.

Applications

– Protein concentration
– Virus concentration
– Nanoparticle concentration
– Sample desalting / diafiltration
– Buffer exchange

Specifications & Pricing

Model	Molecular Weight Cut–Off (MWCO) in daltons	Qty. PK	US List Price ($)	Model	Molecular Weight Cut–Off (MWCO) in daltons	Qty. PK	US List Price ($)
Vivaspin Turbo 4				**Vivaspin Turbo 15 – Polyethersulfone**			
VS04T91	3,000	25	135	VS15T91	3,000	12	132
VS04T92	3,000	100	475	VS15T92	3,000	48	515
VS04T11	5,000	25	135	VS15T11	5,000	12	132
VS04T12	5,000	100	475	VS15T12	5,000	48	515
VS04T01	10,000	25	135	VS15T01	10,000	12	132
VS04T02	10,000	100	475	VS15T02	10,000	48	515
VS04T21	30,000	25	135	VS15T21	30,000	12	132
VS04T22	30,000	100	475	VS15T22	30,000	48	515
VS04T31	50,000	25	135	VS15T31	50,000	12	132
VS04T32	50,000	100	475	VS15T32	50,000	48	515
VS04T41	100,000	25	135	VS15T41	100,000	12	132
VS15T42	100,000	100	475	VS15T42	100,000	48	515

Vivaspin Turbo 4

Vivaspin Turbo 15

Centrisart® I Reverse Centrifugal Concentrators

Ultrafiltration of Biological Samples

Centrisarts are ready-to-use units for separation of proteins from low molecular weight substances in biological samples. Features a unique design that allows ultrafiltration in the direction opposite to the centrifugal force which effectively prevents premature blockage of the filter so that even whole blood samples can be deproteinized.

Centrisart I

Specifications & Pricing

Model	Molecular Weight Cut-Off (MWCO) in daltons	Qty. PK	US List Price ($)
Cellulose Triacetate			
13229----------E	5,000	12	66
13239----------E	10,000	12	66
13249----------E	20,000	12	66
Polyethersulphone			
13269----------E	100,000	12	66
13279----------E	300,000	12	66
Starter Pack			
13209----------E	3 units each of 5k, 10k, 20k, 100k	12	66

Applications

– Serum / blood deproteinization
– Concentration of viscous samples
– Hormone / metabolite determination in serum

Vivaspin® Endotest

Endotoxin Concentration

Vivaspin Endotest is a disposable ultrafiltration device for endotoxin concentration and removal of substances interfering with the LAL test from liquid samples. Certified endotoxin free and available with a cellulose triacetate membrane of 20.000 MWCO. Gives the opportunity to work in parallel which minimizes hands-on-time and can effectively be used in either swing bucket or fixed angle rotors accepting 50 ml conical bottom centrifuge tubes.

Specifications & Pricing

Model	Description	Qty. PK	US List Price ($)
VS15RXETO	Vivaspin Endotest. 20,000 MWCO. Cellulose triacetate	12	125

Applications

– Removal of interfering substances from prior to LAL test e.g. EtOH rebuffering
– Concentration of samples for endotoxin free applications

Vivaclear® Centrifugal Filters

Clarification of Biological Samples

Disposable centrifugal microfiltration devices for the fast and reliable treatment of biological samples, such as the filtration of plasma and serum, filtration of cells or cell debris, or simple removal of particles and participates.

Specifications & Pricing

Model	Description	Qty. PK	US List Price ($)
VK01P042	Vivaclear Mini 0.8 µM PES	100	260

Vivacell Pressure Driven Concentrators

Ready to Use and Flexible Protein Concentration

With Vivacell, Sartorius offers a line of pressure driven ultrafiltration devices for concentration of initial sample volumes from 10 ml up to 250 ml, for fast, safe and mild sample concentration. The unique patented design (vertical membrane and dead stop) provides simplicity, safety and speed. These devices are operated alternatively by centrifugation, pressure or a combination of both - pressure-fugation.

Features & Benefits

Ready to use
Devices are ready to use out of the box – no complicated membrane adjustment and no risk of leakage, as the devices come pre-assembled.

Flexibility
Choice of different operation modes possible: centrifugation, pressure or combination of centrifugation and pressure to suit every need.

Mild to proteins
No foaming, thus denaturation, of protein sample as in stirred cells – the device can be placed on a shaker for mild agitation in the pressurized mode.

Integrated dead stop
Prevents sample being concentrated to dryness, as can happen in stirred cells if left unattended.

Vertical membrane design
Fast concentration due to large membrane areas for recovering active proteins.

Complete concentrate recovery
Complete concentrate is easily pipetted from the dead stop pocket.

Applications

– Protein concentration
– Virus concentration
– Nanoparticle concentration
– Sample desalting / diafiltration

Specifications & Pricing

Model	Molecular Weight Cut–Off (MWCO) in daltons	Qty. PK	US List Price ($)
Vivacell 70 – Polyethersulfone			
VS6011	5,000	2	55
VS6012	5,000	10	225
VS6001	10,000	2	55
VS6002	10,000	10	225
VS6021	30,000	2	55
VS6022	30,000	10	225
VS6031	50,000	2	55
VS6032	50,000	10	225
VS6041	100,000	2	55
VS6042	100,000	10	225
VS6071	0.2µm	2	55
VS6072	0.2µm	10	225
Vivacell 100 – Polyethersulfone			
VC1011	5,000	2	70
VC1012	5,000	10	315
VC1001	10,000	2	70
VC1002	10,000	10	315
VC1021	30,000	2	70
VC1022	30,000	10	315
VC1031	50,000	2	70
VC1032	50,000	10	315
VC1041	100,000	2	70
VC1042	100,000	10	315
VC1101	300,000	2	70
VC1102	300,000	10	315
VC1061	1,000K	2	70
VC1062	1,000K	10	315
VC1071	0.2µm	2	70
VC1072	0.2µm	10	315
Vivacell 250 – Polyethersulfone			
VC2511	5,000	5	135
VC2501	10,000	5	135
VC2521	30,000	5	135
VC2551	50,000	5	135
VC2541	100,000	5	135
VC2571	0.2µm	5	135
VC25S1	1 each of 5,000/10,000/30,000/50,000/100,000	5	135
VCA250	Vivacell 250 Starter - Inc. VCA015; VCA008; Quick connect for APC; 2 reservoirs; Filtrate container; Insert tool	n/a	390

Accessories

Model	Description	VS 20	VC 70	VC 100	VC 250	US List Price ($)
VCA002	Air Pressure Controller (APC) Inc. VCA008, VCA010, VCA011, VCA012	√	√	√	√	277
VCA005	Charge Valve	√	√			53
VCA010	Female Connector	√	√	√	√	41
VCA011	Male Connector	√	√	√	√	35
VCA012	Pressure Tubing	√	√	√	√	8
VCA015	Pressure Head VC250				√	176
VCA800	Pressure Head VC100			√		140
VCA700	Pressure Head VC70 (Bench)		√			176
VCA701	Pressure Head VC70 (Centrifuge)		√			217
VSA003	250ml Bottle; 4/pk		√			80
VCA004	Fixed Angle Cap for VCA003; 2/pk		√			55
VCA200	Pressure Head VS20	√				51

Vivaflow® Crossflow Devices

Plug and Play Crossflow Devices for Sample Concentration

Disposable and reusable tangential | crossflow cassettes for concentration, diafiltration and buffer exchange of biological samples and nanoparticles from 0.1 – 5 l with MWCOs from 3 kDa to 1000 kDa. Available with PES and Hydrosart® ultrafiltration membranes, Vivaflow 50, 50R and 200 are the only dedicated laboratory crossflow cassettes in the market. Our tangential | crossflow concentrators are simple to set up and can be operated with any laboratory pump with flow rates of 200 - 400 ml/min.

Features & Benefits

Different membrane types and cut-offs
Selection of the optimal membrane (choice between PES or Hydrosart) with regard to filterability and chemical compatibility.

Plug and Play Systems
Simple system set-up. Tubing is connected via luer lock connectors. Everything necessary for operation comes with the device. Only a laboratory peristaltic pump is needed for operation.

Choice between disposable and reusable products
Vivaflow 50 is disposable, which is very convenient when e.g. concentrating viruses. Vivaflow 50R and Vivaflow 200 can be reused for standard applications.

Serial/parallel operation of multiple devices
Increases filtration area and thus enabling faster filtration and/or increasing total volume throughput.

Applications

– Protein concentration
– Virus concentration
– Nanoparticle concentration
– Sample desalting / diafiltration
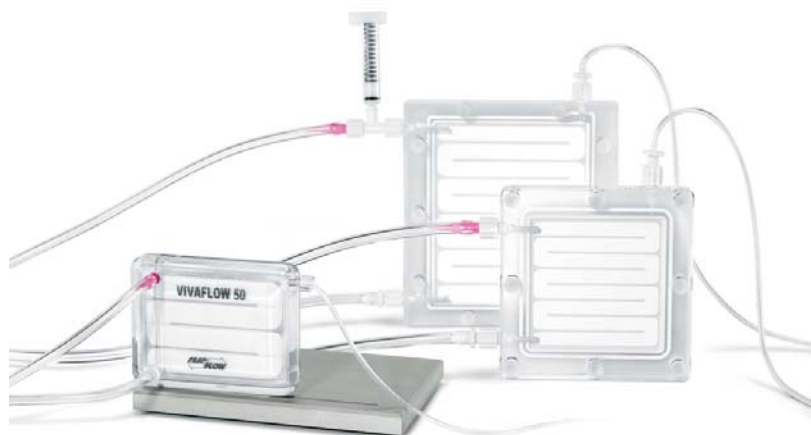
Specifications & Pricing

Model	Molecular Weight Cut–Off (MWCO) in daltons	Qty. PK	US List Price ($)
Vivaflow 50R Crossflow Cassettes – Hydrosart®			
VF05H1	5,000	1	195
VF05H0	10,000	1	195
VF05H2	30,000	1	195
VF05H4	100,000	1	195
Vivaflow 50 Crossflow Cassettes – Polyethersulfone			
VF05P9	3,000	2	140
VF05P1	5,000	2	140
VF05P0	10,000	2	140
VF05P2	30,000	2	140
VF05P3	50,000	2	140
VF05P4	100,000	2	140
VF05P7	0.2µm	2	140
Vivaflow 50 Complete System Comprises			
VFS504	Pump (115 V), Easy load pump head (size 16), tubing, 500ml sample diafiltration reservoir, module stand, pressure indicator, T connectors, series interconnectors		1,405
PVC Tubing and Fittings			
VFA004	Size 16 PVC pump tubing (3m, 3.2 x 1.6mm)		45
VFA009	Flow restrictor set (2 x 0.4, 0.6, 0.8mm)		13
VFA030	T connectors for running 2 stacks (2 pieces)		14
VFA031	Series interconnectors (6 pieces)		31
VFA032	Female luer fittings (10 pieces)		14
VFA034	VF50 tubing Kit (2 x 1 mm size 16 PVC tubing with inlet fittings, 2 x 50 cm size 16 PVC tubing with 0.6mm flow restirctors, 1 x series interconnector		60
VFA035	Flow restrictor 0.6mm (6 pieces)		14
Accessories			
VFP001	Masterflex economy drive variable speed peristaltic pump (240 V)		670
VFP002	Masterflex economy drive variable speed peristaltic pump (115 V)		755
VFA006	500 ml sample and/or diafiltration reservoir		151
VFA012	Masterflex easy load pump head- size 16		430
VFA013	Masterflex easy load pump head- size 15		430
VFA016	Vivaflow 50 stand		151
VFA020	Pressure indicator (1 -3 bar)		31

Model	Molecular Weight Cut–Off (MWCO) in daltons	Qty. PK	US List Price ($)
Vivaflow 200 Crossflow Cassettes – Polyethersulfone			
VF20P9	3,000	1	362
VF20P1	5,000	1	362
VF20P0	10,000	1	362
VF20P2	30,000	1	362
VF20P3	50,000	1	362
VF20P4	100,000	1	362
VF20P7	0.2µm	1	362
Vivaflow 200 Crossflow Cassettes – Hydrosart			
VF20H9	2,000	1	362
VF20H1	5,000	1	362
VF20H0	10,000	1	362
VF20H2	30,000	1	362
VF20H4	100,000	1	362
Vivaflow 200 Complete System Comprises			
VFS204	Pump (115 V), Easy load pump head (size 16), tubing, 500ml sample diafiltration reservoir		1,140
Tubing and Fittings			
VFA003	Size 15 PVC pump tubing (3m, 4.8 x 2.6mm)		45
VFA004	Size 16 PVC pump tubing (3m, 3.2 x 1.6mm)		45
VFA005	Y connector (size 15 to 2 x size 16)		9
VFA009	Flow restrictor set (2 x 0.4, 0.6, 0.8mm)		13
VFA032	Female luer fittings (10 pieces)		14
VFA035	Flow restrictor 0.6mm (6 pieces)		14
VFA036	Female luer fittings size 15 (10 pieces)		14

Vivacon® Centrifugal Concentrators

For High Recovery Concentration of Diluted DNA and Peptide Samples

Vivacon centrifugal units for DNA concentration and buffer exchange are available for 500 µl to 2 ml initial volume samples. They are also the product of choice for peptide fractionation applications, like FASP*. Selected cut offs are available sterile and DNA-free** for DNA concentration and rebuffering applications when even traces of DNA contamination are harmful. The use of Hydrosart® membranes results in high recoveries from even highly dilute samples.

Features & Benefits

Hydrosart® modified regenerated cellulose membrane
Membrane with lowest binding characteristics. Highest concentrate recoveries, even when working with only ng amounts of sample, like case work DNA.

Reverse spin possibility
Allows complete and reproducible concentrate recovery in a new collection tube.

PCR Grade devices for DNA-free products**
Especially important in applications, when even traces of DNA are harmful, like in forensic laboratories.

Horizontal membrane design
Ultrafiltration membranes in a horizontal configuration lead to better results when concentrating extremely dilute DNA samples and fractionating dilute samples.

* Filter aided sample preparation, Jacek R. Wisniewski, Dorota F. Zielinska and Matthias Mann (2010). Anal Biochem Dec 14, 2010
**qPCR assay over 55 cycles with a verified limit of detection < 2 pg

Applications

– Genomic DNA concentration of e.g. forensic samples
– Peptide fractionation (FASP*)
– Primer removal
– Plasmid DNA concentrations / desalting

Conversion Table for MWCO to Base Pair Cut-Off

Membrane	MWCO	Double-Stranded Nucleotide Cut–Off (bp)
Hydrosart®	2 kDa	> 10
Hydrosart®	10 kDa	> 30
Hydrosart®	30 kDa	> 50
Hydrosart®	50 kDa	> 300
Hydrosart®	100 kDa	> 600
Cellulose Acetate	125 kDa	> 650

Ordering Information

Model	Description	Qty/Pk	US List Price ($)
Vivacon® 500			
VN01H91	2,000 MWCO	25	110
VN01H92	2,000 MWCO	100	360
VN01H01	10,000 MWCO	25	110
VN01H02	10,000 MWCO	100	360
VN01H21	30,000 MWCO	25	110
VN01H22	30,000 MWCO	100	360
VN01H31	50,000 MWCO	25	110
VN01H32	50,000 MWCO	100	360
VN01H41	100,000 MWCO	25	110
VN01H42	100,000 MWCO	100	360
VN01H81	125,000 MWCO	25	110
VN01H82	125,000 MWCO	100	360
VN01H83	125,000 MWCO	500	tbd
VN01HL12	Sample Kit L (4 units each of 2, 10, 30 K)	12	60
VN01HH12	Sample Kit H (4 units each of 30, 50, 100 K)	12	60
Vivacon® 500 PCR Grade			
VN01H21ETO	30,000 MWCO	25	121
VN01H22ETO	30,000 MWCO	100	395
VN01H31ETO	50,000 MWCO	25	121
VN01H32ETO	50,000 MWCO	100	395
VN01H41ETO	100,000 MWCO	25	121
VN01H42ETO	100,000 MWCO	100	395
VN01H81ETO	125,000 MWCO	25	121
VN01H82ETO	125,000 MWCO	100	395

Accessories

Item	Description	Qty/Pk	US List Price ($)
VNCT01	Collection Tubes	100	66

Ordering Information

Model	Molecular Weight Cut–Off (MWCO) in daltons	Qty/Pk	US List Price ($)
Vivacon 2 – Hydrosart			
VN02H91	2,000	25	130
VN02H92	2,000	100	465
VN02H93	2,000	500	2,060
VN02H01	10,000	25	130
VN02H02	10,000	100	465
VN02H03	10,000	500	465
VN02H21	30,000	25	130
VN02H22	30,000	100	465
VN02H31	50,000	25	130
VN02H32	50,000	100	465
VN02H41	100,000	25	130
VN02H42	100,000	100	465
Vivacon 2 PCR Grade – Hydrosart			
VN02H21ETO	30,000	25	145
VN02H22ETO	30,000	100	520
VN02H3SETO	50,000	4	26
VN02H31ETO	50,000	25	145
VN02H32ETO	50,000	100	520
VN02H41ETO	100,000	25	145
VN02H42ETO	100,000	100	520
Vivacon Accessories			
VNA001	Vivacon 2 Rack	1	25
VNCT01	Collection Tubes	100	66

Vivapore Static Concentrators
Ready to Use and Flexible Protein Concentration

Vivapore static concentrators are optimal for fast and economic concentration of body liquids like urine and cerebrospinal fluid prior to analysis by electrophoresis or immunoelectrophoresis (e.g. Bence Jones proteins in urine). An absorbent pulls solvent and salts through the ultrafiltration membrane, concentrating the sample. With no need for additional equipment, static concentrators are the most economic and user friendly concentration technique available for clinical applications.

Features & Benefits

Individual devices
Prevent the risk of cross contamination, as may be the case with devices sharing one adsorbent pad for multiple samples.

Integrated dead stop
Prevents sample concentrate to dryness, sample can be left to concentrate unattended overnight.

Easy Recovery
Complete concentrate is easily recovered by single-use pipettes provided in every pack.

Economical product
Low budget solution, as no additional instruments are needed.

CE mark
Product is offered for in vitro diagnostic use.

Applications

– Bence Jones Protein concentration from body fluids like urine

Specifications & Pricing

Model	Description	Qty. PK	US List Price ($)
Vivapore 5			
VP0503	7,500 MWCO PES. Includes stand and recovery pipettes	4	26
VP0501	7,500 MWCO PES. Includes stand and recovery pipettes	30	180
VP0502	7,500 MWCO PES. No stand	100	455
Vivapore 10 | 20			
VP2003	7,500 MWCO PES. Includes stand and recovery pipettes	4	38
VP2001	7,500 MWCO PES. Includes stand and recovery pipettes	30	196
VP2002	7,500 MWCO PES. No stand	100	505

Accessories

Model	Description	Qty. PK	US List Price ($)
VPA002	Disposable stands for 4 units	6	28
VPA005	Plastic recovery pipettes (Vivapore 10 |20)	100	31
VPA006	10 ml expansion reservoir (Vivapore 10|20)	10	20
VPA007	Plastic recovery pipettes (Vivapore 5)	100	19

Vivapure® Ion Exchange Membrane Chromatography

Ready-to-use Protein Purification Spin Columns

Vivapure ion exchange spin columns are centrifugal devices incorporating Sartobind Membrane Adsorber technology as their chromatography matrix, making protein purification as easy as filtration. The devices are ready-to-use and do not bear the risk of running dry. The rapid 1-2-3 bind- wash- elute protocol can replace time-consuming and tedious column chromatography. Available in three membrane chemistries: Sulphonic acid (S), Quaternary ammonium (Q), and Diethylamine (D).

Features & Benefits

Ready to use
Devices are ready to use out of the box – no column packing necessary. Vivapure makes protein purification as easy as filtration.

Centrifugal devices
Centrifugal devices can be run in parallel – optimal for purification optimization or screening.

Up-Scalable Product range
Process scale modules are available with the same Ion Exchange membrane adsorber matrix.

Applications

– Protein purification
– DNA purification
– Sample fractionation
– Endotoxin removal

Specifications & Pricing

Model	Description	Qty. PK	US List Price ($)
Vivapure Mini Ion Exchange Spin Columns			
VS-IX01DH24	Vivapure D Mini H (24 columns, 48 collection tubes)	24	170
VS-IX01QH24	Vivapure Q Mini H (24 columns, 48 collection tubes)	24	170
VS-IX01SH24	Vivapure S Mini H (24 columns, 48 collection tubes)	24	170
VS-IX01SQ16	Vivapure S & Q Mini H (8 each of S & Q, 32 collection tubes)	16	117
Vivapure Maxi Ion Exchange Spin Columns			
VS-IX20DH08	Vivapure D Maxi H (8 columns, 16 collection tubes)	8	320
VS-IX20QH08	Vivapure Q Maxi H (8 columns, 16 collection tubes)	8	320
VS-IX20SH08	Vivapure S Maxi H (8 columns, 16 collection tubes)	8	320

Vivapure® Mini & Maxiprep Purification Kits

For Fast Antibody and His-Tagged Protein Purification with High Yields

Vivapure Miniprep and Maxiprep kits are spin column based kits for fast and effective purification of His-tagged proteins and antibodies. They come in a variety of different configurations for your convenience and can be purchased as completely ready-to-use kits with buffers and ultrafiltration devices as well as stand alone spin columns in small packs or large packs for frequent users. Spin columns have the advantage of speed over gravity drip columns and batch protocols.

Features & Benefits

Ready to use. Devices are ready to use out of the box – no column packing necessary with ready-to-use resin plugs.

Centrifugal devices. Spin columns have the advantage of speed over gravity drip columns and batch protocols.

Flexible formats. Kits, individual devices and bulk packs offer the optimal solution to every purification need.

Applications

–   Antibody purification
–   His-Tagged protein purification

Specifications & Pricing

Model	Description	Qty. PK	US List Price ($)
Vivapure mini/maxiprep – Protein A			
VS-ARSTPKA2	Vivapure miniprep A Starter Pack	2	140
VS-ARAMINIK	Vivapure miniprep A Kit (Includes UF concentrators + buffer)	16	585
VS-ARAMINIB	Vivapure miniprep A Bulk Pack	48	995
VS-ARAMAXIK	Vivapure maxiprep A Kit (Includes UF concentrators + buffer)	4	545
VS-ARAMAXIB	Vivapure maxiprep A Bulk Pack	12	935
VS-ARABUFPK	Vivapure A Buffer Pack	48 mini or 4 maxi	73
VS-IX20SH08	Vivapure S maxi H (8 columns, 16 collection tubes)	8	320
Vivapure mini/maxiprep – Protein G			
VS-ARSTPKG2	Vivapure G Starter Pack	2	140
VS-ARGMINIK	Vivapure miniprep G Kit (Includes UF concentrators + buffer)	16	635
VS-ARGMINIB	Vivapure miniprep G Bulk Pack	48	1,075
VS-ARGMAXIK	Vivapure maxiprep G Kit (Includes UF concentrators + buffer)	4	585
VS-ARGMAXIB	Vivapure maxiprep G Bulk Pack	12	1,245
VS-ARGBUFPK	Vivapure G Buffer Pack	48 mini or 4 maxi	57
Vivapure mini/maxiprep – Metal Chelate			
VS-MCST04	Vivapure MC Starter Pack	2	147
VS-MCMINI24	Vivapure miniprep MC Kit (Includes UF concentrators + buffer)	24	530
VS-MCMINIB	Vivapure miniprep MC Bulk Pack	72	930
VS-MCMAXIK	Vivapure maxiprep MC Kit (Includes UF concentrators + buffer)	8	445
VS-MCMAXIB	Vivapure maxiprep MC Bulk Pack	24	930
VS-MCBUFPK	Vivapure MC Buffer Pack	48 mini or 4 maxi	81

Vivapure® Virus Purification and Concentration Kits

Easy to Use and Fast Adenovirus Type 5 and VSV-G Lentivirus Purification

Adenovirus and lentivirus purification kits utilize Sartobind® ion exchange membrane chromatography technology for fast and safe virus purification in volumes from 20 ml to 1000 ml. These ready to use kits contain all buffers and devices needed for quantitative yield virus purification in only a few hours. The AdenoPACK kits can recover up to 3×10^{13} purified recombinant adenovirus particles for in vitro transfection. The LentiSELECT kits recover up to 5×10^9 infective lentivirus particles per ml for in vitro transfection or animal studies.

Features & Benefits

Syringe filter or spin columns based purification columns
No need for expensive ultracentrifuges. Additionally, Sartobind® membrane adsorbers lead to much faster purification of the viruses, compared to traditional methods.

Flexible product range. Applicable from initial construct screening to large scale virus purification as different kit formats are available.

Complete kits. One stop shopping – the kits contain everything needed for Adenovirus and Lentivirus purification - including filtration devices, purification units, Vivaspin ultrafiltration devices and buffers.

Applications

– Adenovirus Type 5 purification
– VSV-G pseudotyped lentivirus purification

Specifications & Pricing

Model	Description	Sample Size	Qty/PK	US List Price ($)
Vivapure AdenoPACK				
VS–AVPQ020	AdenoPACK 20	6 x 20ml	1	255
VS–AVPQ101	AdenoPACK 100	4 x 60ml	1	457
VS–AVPQ501	AdenoPACK 500	500ml	1	1,005
Vivapure AdenoPACK Accessories				
VS–AVPA001	AdenoPACK Pump Tubing Set (for Adenopack 100)	n/a	1	37
Vivapure LentiSELECT				
VS–LVPQ040	LentiSELECT 40	4 x 40ml	1	655
VS–LVPQ500	LentiSELECT 500	500ml	1	1,275
VS–LVPQ1000	LentiSELECT 1000	1000ml	1	2,115

Chemical Compatibility Chart

For Minisart® Syringe Filters

	PES membrane	SFCA membrane	PTFE membrane	RC membrane	Nylon Membrane	GF depth filter	Housing MBS	Housing PP	Minisart® HighFlow	Minisart® NML / Ophthalsart	Microsart® NML Plus	Minisart® GF	Minisart® HY	Minisart® RC	Minisart® NY	Minisart® SRP
Filter	PES	SFCA	PTFE	RC	PA	GF			PES	SFCA	SFCA + GF	GF	PTFE	RC	PA	PTFE
Housing							MBS	PP	MBS	MBS	MBS	MBS	MBS	PP	PP	PP
Sterilization																
Ethylene oxide	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++
Gamma irradiation	++	++	–[1]	++	–	++	++	–	++	++	++	++	–	–	–	–
Autoclaving 121 °C, 30 min	++	++	++	++	++	++	–	++	–	–	–	–	–	++	++	++
Solvents																
Acetone	–	–	++	++	++	++	–	++	–	–	–	–	–	++	++	++
Acetonitrile	–	–	++	++	n.a.	++	–	++	–	–	–	–	–	++	n.a.	++
Gasoline	+	+	++	++	++	++	++	++	+	+	+	++	++	++	++	++
Benzene	–	+	++	++	++	++	–	++	–	–	–	–	–	++	++	++
Benzyl alcohol	–	–	++	++	++	++	–	+	–	–	–	–	–	+	+	+
n–Butyl acetate	–	–	++	++	++	++	–	++	–	–	–	–	–	++	++	++
n–Butanol	+	+	++	++	++	++	++	++	+	+	+	++	++	++	++	++
Cellosolve	++	–	++	++	++	++	–	–	–	–	–	–	–	–	–	–
Chloroform	–	–	++	++	++	++	–	++	–	–	–	–	–	++	++	++
Cyclohexane	–	+	++	++	++	++	+	+	–	+	+	+	+	+	+	+
Cyclohexanone	–	+	++	++	++	++	–	+	–	–	–	–	–	+	+	+
Diethylacetamide	–	–	++	++	++	++	–	++	–	–	–	–	–	++	++	++
Diethyl ether	–	+	++	++	++	++	–	++	–	–	–	–	–	++	++	++
Dimethyl formamide	–	–	++	+	+	++	–	+	–	–	–	–	–	+	+	+
Dimethylsulfoxide	–	–	++	++	++	++	–	++	–	–	–	–	–	++	++	++
Dioxane	–	–	++	++	++	++	–	++	–	–	–	–	–	++	++	++
Ethanol, 98%	++	+	++	++	++	++	–	+	–	–	–	–	–	+	+	+
Ethyl acetate	–	–	++	++	++	++	–	+	–	–	–	–	–	+	+	+
Ethylene glycol	++	+	++	++	++	++	++	++	++	+	+	++	++	++	++	++
Formamide	++	–	++	+	++	++	++	++	++	–	–	++	++	+	++	++
Glycerin	++	+	++	++	++	++	+	+	+	+	+	+	+	+	+	+
n–Heptane	++	+	++	++	++	++	+	++	+	+	+	+	+	++	++	++
n–Hexane	++	+	++	++	++	++	+	+	+	+	+	+	+	+	+	+
Isobutanol	++	+	++	++	++	++	++	–	++	+	+	++	++	–	–	–
Isopropanol	++	+	++	++	++	++	–	++	–	–	+	–	–	++	++	++
Isopropyl acetate	–	–	++	++	++	++	–	++	–	–	–	–	–	++	++	++
Methanol, 98%	+	–	++	++	++	++	–	+	–	–	–	–	–	+	+	+
Methyl acetate	–	–	++	++	++	++	–	+	–	–	–	–	–	+	+	+
Methylene chloride	–	–	++	++	++	++	–	++	–	–	–	–	–	++	++	++
Methyl ethyl ketone	–	–	++	++	++	++	–	+	–	–	–	–	–	+	+	+
Methyl isobutyl ketone	–	–	++	++	++	++	–	+	–	–	–	–	–	+	+	+
Monochlorobenzene	–	–	++	++	++	++	–	+	–	–	–	–	–	+	+	+
Nitrobenzene	–		++	++	+	++	–	+	–	–	–	+	–	+	+	+
n–Pentane	++	+	++	++	++	++	+	++	+	+	+	+	+	++	++	++
Perchloroethylene	–	–	++	++	++	++	–	++	–	–	–	–	–	++	++	++

Chemical Compatibility Chart

For Minisart® Syringe Filters

	PES membrane	SFCA membrane	PTFE membrane	RC membrane	Nylon Membrane	GF depth filter	Housing MBS	Housing PP	Minisart® HighFlow	Minisart® NML | Ophthalsart	Microsart® NML Plus	Minisart® GF	Minisart® HY	Minisart® RC	Minisart® NY	Minisart® SRP
Filter	PES	SFCA	PTFE	RC	PA	GF			PES	SFCA	SFCA + GF	GF	PTFE	RC	PA	PTFE
Housing							MBS	PP	MBS	MBS	MBS	MBS	MBS	PP	PP	PP
Sterilization																
Pyridine	-	-	++	++	++	++	-	++	-	-	-	-	-	++	++	++
Carbon tetrachloride	-	-	++	++	++	++	-	-	-	-	-	-	-	-	-	-
Tetrahydrofuran	-	-	++	++	++	++	-	++	-	-	++	-	-	++	++	++
Toluene	-	+	++	++	++	++	-	++	-	-	++	-	-	++	++	++
Trichloroethane	-	-	++	++	++	++	-	n.a.	-	-	-	-	-	n.a.	n.a.	n.a.
Trichloroethylene	-	+	++	++	++	++	-	++	-	-	++	-	-	++	++	++
Xylene	-	+	++	++	++	++	-	+	-	-	-	-	-	+	+	+
Acids																
Acetic acid, 25%	+	+	++	++	-	++	-	+	-	-	-	-	-	+	-	+
Acetic acid, 80%	n.a.	-	++	++	-	++	-	+	-	-	-	-	-	+	-	+
Hydrofluoric acid, 25%	+	-	++	+	-	++	+	+	+	-	-	+	+	+	-	+
Hydrofluoric acid, 50%	+	-	++	+	-	++	+	+	+	-	-	+	+	+	-	+
Perchloric acid, 25%	-	-	++	-	-	++	n.a.	+	-	-	-	n.a.	n.a.	-	-	+
Phosphoric acid, 1%	++	+	++	-	-	++	+	+	+	+	+	+	+	-	-	+
Phosphoric acid, 86%	++	+	++	-	-	++	+	+	+	+	+	+	+	-	-	+
Nitric acid, 30%	+	-	++	-	-	++	+	+	+	-	-	+	+	-	-	+
Nitric acid, conc.	-	-	++	-	-	++	-	-	-	-	-	-	-	-	-	-
Hydrochloric acid, 15%	++	+	++	-	-	++	+	+	+	+	+	+	+	-	-	+
Hydrochloric acid, 20%	++	-	++	-	-	++	+	+	+	-	-	+	+	-	-	+
Sulfuric acid, 25%	+	-	++	+	-	++	+	++	-	-	-	+	+	+	-	++
Sulfuric acid, 98%	-	-	++	-	-	++	-	+	-	-	-	-	-	-	-	+
Trichloroacetic acid, 25%	n.a.	-	++	++	-	++	-	+	-	-	-	-	-	+	-	+
Bases																
Ammonia, 1N	++	-	++	+	++	++	-	++	-	-	-	-	-	+	++	++
Ammonium hydroxide, 25%	+	+	++	+	++	+	-	+	-	-	-	-	-	+	+	+
Potassium hydroxide, 32%	++	-	++	-	+	+	-	++	-	-	-	-	-	-	+	++
Sodium hydroxide, 32%	++	-	++	-	+	+	-	+	-	-	-	-	-	-	+	+
Sodium hydroxide, 1N	++	-	++	+	++	+	-	++	-	-	-	-	-	+	++	++
Aqueous solutions																
Formalin, 30%	+	++	++	+	++	++	+	+	+	+	+	+	+	+	+	+
Sodium hypochlorite, 5%	++	-	++	-	-	++	+	+	+	-	-	+	+	-	-	+
Hydrogen peroxide, 35%	++	-	++	-	-	++	+	++	+	-	-	+	+	-	-	++
pH range																
pH 1-14	-	-	++	-	-	++	-	++								
pH 1-13	++	-	++	-	-	++	-	++								
pH 3-14	+	-	++	+	++	++	-	++								
pH 3-12	++	-	++	++	++	++	+	++								
pH 4-8	++	++	++	++	++	++	++	++								

Legend

Compatible	++
Limited compatibility	+
Not compatible	-
not analyzed	n.a.

[1] gamma irradiation feasible for Minisart® Air

Contact time: 24 hours at 20 °C. Chemical compatibilities can be influenced by various factors. Therefore, we recommend that you confirm compatibility with the liquid you want to filter by performing a trial filtration run before you start your actual filtration.

Minisart® Syringe Filters – Sample Preparation

Reliable Removal of Particles and Microorganisms from Liquids to Protect Your Analytical Instruments

Elimination of particles from your samples prior to HPLC or other chromatographic analysis is essential in order to maintain the integrity of your chromatography column and to maximize its operating life. Minisart® syringe filters for sample preparation consist of a PP housing and membrane components featuring maximum chemical compatibility and minimum extractables to ensure excellent results.

Features & Benefits

Low adsorption.
Lowest unspecific binding for minimal analyte loss

Maximum chemical compatibility.
Minisart for sample preparation are suitable for multiple application areas

Minimum extractables or leachables.
Low background noise and pure analytical results

Superior flow rate.
Fast and easy sample preparation

In-production integrity leakage test
Highest quality Minisart syringe filters for reliable results

Applications

– Sample Preparation prior to analytical methods
– Filtration of organic solvents, running buffers, and harsh chemical solutions
– Sterile filtration of gasses and air with Minisart SRP

Male Luer Slip   Male Spike

4mm packs are color-coded

* Sterile Minisarts are individually packaged. If not stated otherwise, Minisarts have been sterilized by ethylene oxide. The following Minisarts are NOT presterilized unless specifically noted. RC, PTFE and Nylon can be sterilized by autoclaving at 121°C for 30 min/or by using ethylene oxide (EO).

Specifications & Pricing

Minisart® RC (Regenerated Cellulose)

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
17764--------ACK	25 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	Yes	50	120
17764----------K	25 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	No	50	111
17764----------S	25 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	No	200	355
17764----------Q	25 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	765
17765----------K	25 mm	RC	PP	0.45 µm	Male Luer Slip	White, Printed	No	50	111
17765----------S	25 mm	RC	PP	0.45 µm	Male Luer Slip	White, Printed	No	200	355
17765----------Q	25 mm	RC	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	765
17761--------ACK	15 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	Yes	50	111
17761----------K	15 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	No	50	101
17761----------Q	15 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	730
17762----------K	15 mm	RC	PP	0.45 µm	Male Luer Slip	White, Printed	No	50	101
17762----------Q	15 mm	RC	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	730
17821----------K	4 mm	RC	PP	0.2 µm	Male Luer Slip	Blue Tray	No	50	70
17821----------Q	4 mm	RC	PP	0.2 µm	Male Luer Slip	Blue Tray	No	500	620
17822----------K	4 mm	RC	pp	0.45 µm	Male Luer Slip	Yellow Tray	No	50	70
17822----------Q	4 mm	RC	PP	0.45 µm	Male Luer Slip	Yellow Tray	No	500	620

Minisart ® SRP (Hydrophobic PTFE)

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
17575--------ACK	25 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	Yes	50	155
17575----------K	25 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	No	50	140
17575----------S	25 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	No	200	465
17575----------Q	25 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	845
17576----------K	25 mm	PTFE	PP	0.45 µm	Male Luer Slip	White, Printed	No	50	140
17576----------S	25 mm	PTFE	PP	0.45 µm	Male Luer Slip	White, Printed	No	200	465
17576----------Q	25 mm	PTFE	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	845
17558----------K	15 mm	PTFE	PP	0.2 µm	Male Spike	White, Printed	No	50	130
17558----------Q	15 mm	PTFE	PP	0.2 µm	Male Spike	White, Printed	No	500	740
17573--------ACK	15 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	Yes	50	135
17573----------K	15 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	No	50	125
17573----------Q	15 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	735
17559----------K	15 mm	PTFE	PP	0.45 µm	Male Spike	White, Printed	No	50	130
17559----------Q	15 mm	PTFE	PP	0.45 µm	Male Spike	White, Printed	No	500	740
17574----------K	15 mm	PTFE	PP	0.45 µm	Male Luer Slip	White, Printed	No	50	125
17574----------Q	15 mm	PTFE	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	735
17844----------Q	4 mm	PTFE	PP	0.2 µm	Male Luer Slip	Blue Tray	No	500	620
17820----------K	4 mm	PTFE	PP	0.45 µm	Male Luer Slip	Yellow Tray	No	50	70
17820----------Q	4 mm	PTFE	PP	0.45 µm	Male Luer Slip	Yellow Tray	No	500	620

Minisart® NY (Nylon) & NY25 Plus (Glass Fiber 1.2 µm + Nylon)

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
17845--------ACK	25 mm	Nylon	PP	0.2 µm	Male Luer Slip	White, Printed	Yes	50	125
17845----------Q	25 mm	Nylon	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	765
17846--------ACK	25 mm	Nylon	PP	0.45 µm	Male Luer Slip	White, Printed	Yes	50	125
17846----------Q	25 mm	Nylon	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	765
1776B----------K	15 mm	Nylon	PP	0.2 µm	Male Luer Slip	White, Printed	No	50	101
1776B----------Q	15 mm	Nylon	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	730
1776C----------K	15 mm	Nylon	PP	0.45 µm	Male Luer Slip	White, Printed	No	50	101
1776C----------Q	15 mm	Nylon	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	730
1784B----------K	25 mm	Nylon+GF	PP	0.2 µm	Male Luer Slip	White, Printed	No	50	155
1784B----------Q	25 mm	Nylon+GF	PP	0.2 µm	Male Luer Slip	White, printed	No	500	1,100
1784C----------K	25 mm	Nylon+GF	PP	0.45 µm	Male Luer Slip	White, printed	No	50	155
1784C----------Q	25 mm	Nylon+GF	PP	0.45 µm	Male Luer Slip	White, printed	No	500	1,100

Minisart® Syringe Filters – Aqueous Liquids

Make Your Choice from a Broad Range of Pore Sizes, Materials and Formats

For clarification and sterilization of liquids, filtration is the optimal method. It removes all microorganisms and particles reliably, without any effects on the ingredients, due to adsorption or decomposition. For optimal results Minisart® filters made of MBS housing provide high flow rates and lowest adsorption characteristics. The MBS housing is color-coded for an easy pore size identification.

Features & Benefits

Low adsorption
Lowest unspecific binding for minimal loss of solved reagents, biomolecules and drugs

Minimum leachables and particulates
Pure filtrates

Superior flow rates
Fast and easy filtration of liquids

High total throughput
Optimal filtration volume

In-production integrity leakage test
Highest quality Minisart® syringe filters for reliable results

Applications

- Clarification of aqueous solutions prior to downstream applications
- Sterile Filtration of aqueous liquids, protein solutions, buffers, etc.
- Sterile filtration of cell culture buffers and additives

Minisart® NML with SFCA

| 0.2 | 0.45 | 0.65 | 0.8 | 1.2 | 5.0 |

Minisart® High Flow with PES

| 0.2 | 0.45 | 0.1 |
| Dark blue | Orange | Dark red |

Specifications & Pricing

Minisart® High Flow (PES – Polyethersulfone)

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
16553----------K	28 mm	PES	MBS	0.1 µm	Male Luer Lock	Dark Red	Yes	50	130
16532--------GUK	28 mm	PES	MBS	0.2 µm	Male Luer Lock	Royal Blue	Yes#	50	130
16532----------K	28 mm	PES	MBS	0.2 µm	Male Luer Lock	Royal Blue	Yes	50	130
16541----------K	28 mm	PES	MBS	0.2 µm	Male Luer Slip	Royal Blue	Yes	50	130
16532----------Q	28 mm	PES	MBS	0.2 µm	Male Luer Lock	Royal Blue	No	500	705
16541----------Q	28 mm	PES	MBS	0.2 µm	Male Luer Slip	Royal Blue	No	500	705
16537----------K	28 mm	PES	MBS	0.45 µm	Male Luer Lock	Amber	Yes	50	130
16537----------Q	28 mm	PES	MBS	0.45 µm	Male Luer Lock	Amber	No	500	705
16533--------GUK	28 mm	PES	MBS	0.45 µm	Male Luer Slip	Amber	Yes#	50	130
16533----------K	28 mm	PES	MBS	0.45 µm	Male Luer Slip	Amber	Yes	50	130
16533----------Q	28 mm	PES	MBS	0.45 µm	Male Luer Slip	Amber	No	500	725

Minisart® NML (SFCA – Surfactant–free Cellulose Acetate)

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
16534----------K	28 mm	SFCA	MBS	0.2 µm	Male Luer Lock	Blue	Yes	50	130
16534--------GUK	28 mm	SFCA	MBS	0.2 µm	Male Luer Lock	Blue	Yes#	50	130
16534----------Q	28 mm	SFCA	MBS	0.2 µm	Male Luer Lock	Blue	No	500	750
17597----------K	28 mm	SFCA	MBS	0.2 µm	Male Luer Slip	Blue	Yes	50	130
17597----------Q	28 mm	SFCA	MBS	0.2 µm	Male Luer Slip	Blue	No	500	750
16555----------K	28 mm	SFCA	MBS	0.45 µm	Male Luer Lock	Yellow	Yes	50	130
16555--------GUK	28 mm	SFCA	MBS	0.45 µm	Male Luer Lock	Yellow	Yes#	50	130
16555----------Q	28 mm	SFCA	MBS	0.45 µm	Male Luer Lock	Yellow	No	500	750
17598----------K	28 mm	SFCA	MBS	0.45 µm	Male Luer Slip	Yellow	Yes	50	130
17598----------Q	28 mm	SFCA	MBS	0.45 µm	Male Luer Slip	Yellow	No	500	750
16569----------K	28 mm	SFCA	MBS	0.65 µm	Male Luer Slip	Pink	Yes	50	122
16592----------K	28 mm	SFCA	MBS	0.8 µm	Male Luer Lock	Green	Yes	50	122
16592--------GUK	28 mm	SFCA	MBS	0.8 µm	Male Luer Lock	Green	Yes#	50	122
16592----------Q	28 mm	SFCA	MBS	0.8 µm	Male Luer Lock	Green	No	500	730
17593----------K	28 mm	SFCA	MBS	1.2 µm	Male Luer Lock	Red	Yes	50	122
17593----------Q	28 mm	SFCA	MBS	1.2 µm	Male Luer Lock	Red	No	500	730
17594----------K	28 mm	SFCA	MBS	5 µm	Male Luer Lock	Brown	Yes	50	130
17594----------Q	28 mm	SFCA	MBS	5 µm	Male Luer Lock	Brown	No	500	750

Minisart® NML Plus (Glass Fiber 1.2 µm + SFCA)

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
17823----------K	28 mm	GF+SFCA	MBS	0.2 µm	Male Luer Lock	Blue	Yes	50	145
17823----------Q	28 mm	GF+SFCA	MBS	0.2 µm	Male Luer Lock	Blue	No	500	860
17829----------K	28 mm	GF+SFCA	MBS	0.45 µm	Male Luer Lock	Yellow	Yes	50	145
17829----------Q	28 mm	GF+SFCA	MBS	0.45 µm	Male Luer Lock	Yellow	No	500	860
17825----------Q	28 mm	GF+SFCA	MBS	1.2 µm	Male Luer Lock	Red	No	500	860
17824----------K	28 mm	GF	MBS	0.7 µm	Male Luer Lock	White	No	50	80
17824----------Q	28 mm	GF	MBS	0.7 µm	Male Luer Lock	White	No	500	635

* Sterilized Minisarts are individually packaged. If not stated otherwise, Minisarts are sterilized by ethylene oxide.
#–Mark indicates sterilization by gamma irradiation.
Minisarts on this page are supplied individually wrapped and sterile, except in packs of 500 (Q). PES, SFCA, GF+SFCA and GF can be sterilized by ethylene oxide or gamma irradiation.

Minisart® Syringe Filters – Venting & Special Applications

Make Your Choice from a Broad Range of Pore Sizes, Materials and Formats

Minisart® syringe filters are available in a broad range of pore sizes. They are ideal for clarification of liquids laden with particles, e.g. for preparation of pharmaceuticals or infusion solutions. For sterilization and removal of particles from air and other gases, syringe filters are optimal for sterile venting of containers, bioreactors, fermenters and tubing systems. Minisart® syringe filters are available in a wide choice of membranes, connectors and housing materials.

Features & Benefits

In-production integrity leakage test
Highest quality Minisart syringe filters for reliable results

Low adsorption
Lowest unspecific binding for minimal loss of biomolecules and drugs

Superior flow rates
Fast and easy filtration of liquids or optimal sterile venting of containers

Minimum leachables and particulates
Pure filtrated solutions or gasses without contaminations

Various connectors
Many choices of connector inlets and outlets for optimal usage or assembling to tubing systems

Applications

– Particulate removal from liquids and gasses
– Sterile Filtration of biomolecules and drug solutions
– Sterile venting of bags, fermenters and bioreactors
– Moisture barriers for electronic device and other devices

Specifications & Pricing

Minisart® NML (SFCA – Cellulose Acetate) Aqueous Filtration

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
16534----------K	28 mm	SFCA	MBS	0.2 μm	Male Luer Lock	Blue	Yes	50	130
16534--------GUK	28 mm	SFCA	MBS	0.2 μm	Male Luer Lock	Blue	Yes#	50	130
16534----------Q	28 mm	SFCA	MBS	0.2 μm	Male Luer Lock	Blue	No	500	750
17597----------K	28 mm	SFCA	MBS	0.2 μm	Male Luer Slip	Blue	Yes	50	130
17597----------Q	28 mm	SFCA	MBS	0.2 μm	Male Luer Slip	Blue	No	500	750
16555----------K	28 mm	SFCA	MBS	0.45 μm	Male Luer Lock	Yellow	Yes	50	130
16555--------GUK	28 mm	SFCA	MBS	0.45 μm	Male Luer Lock	Yellow	Yes#	50	130
16555----------Q	28 mm	SFCA	MBS	0.45 μm	Male Luer Lock	Yellow	No	500	750
17598----------K	28 mm	SFCA	MBS	0.45 μm	Male Luer Slip	Yellow	Yes	50	130
17598----------Q	28mm	SFCA	MBS	0.45	Male Luer Slip	Yellow	No	500	750
17594----------K	28 mm	SFCA	MBS	5 μm	Male Luer Lock	Brown	Yes	50	130

Minisart® Ophthalsart (SFCA – Cellulose Acetate) Aqueous Filtration

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
17528----------K	28 mm	Opthalsart	MBS	0.2 μm	Male Luer Slip	Pink	Yes	50	130

Minisart® High Flow (PES – Polyethersulfon) Aqueous Filtration

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
16553----------K	28 mm	PES	MBS	0.1 μm	Male Luer Lock	Dark Red	Yes	50	130

Minisart® (PES – Polyethersulfon) Aqueous Filtration

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
1776D--------ACK	15 mm	PES	PP	0.2 μm	Male Luer Slip	White	Yes	50	135

Minisart® Air (hydrophobic PTFE) Venting & Gas Filtration

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
1751A----------Q	15 mm	PTFE	MBS	0.2 μm	Male Luer Slip	Yellow	No	500	750
16596--------HNK	15 mm	PTFE	MBS	0.2 μm	Male Luer Slip + Needle	Yellow	Yes#	50	215

Minisart® HY (hydrophobic PTFE) CE-marked Venting & Gas Filtration

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
16596--------HYK	26 mm	PTFE	MBS	0.2 μm	Male Luer Lock	Clear	Yes	50	130
16596--------HYQ	26 mm	PTFE	MBS	0.2 μm	Male Luer Lock	Clear	No	500	750
16599--------HYQ	26 mm	PTFE	MBS	0.2 μm	Male Luer Lock[a]	Clear	No	500	750
40078----------Q	26 mm	PTFE	MBS	0.2 μm	Hose Barbs[b]	Clear	No	500	775
1659A--------HYQ	26 mm	PTFE	MBS	1 μm	Male Luer Lock	Clear	No	500	750
1659B--------HYQ	26 mm	PTFE	MBS	1 μm	Hose Barbs[b]	Clear	No	500	750

Minisart® Acticosart with Dome Reservoire + hydrophobic PTFE Venting & Ultracleaning of Gases

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
17840----------Q	26 mm	active carbon reservoir +PTFE	MBS	0.45 μm	Male Luer Slip[a]	Blue	No	500	1,930

Minisart® SRP (hydrophobic PTFE) CE-marked Venting, Gas Filtration & Filtration of Solvents

Model	Ø mm	Membrane	Housing	Pore Size	Connector Outlet	Color/Printing	Sterile*	Qty/Pk	US List Price ($)
17575--------ACK	25 mm	PTFE	PP	0.2 μm	Male Luer Slip	White	Yes	50	155
1757A--------Q	26 mm	PTFE	PP	0.2 μm	Hose Barb	White	No	500	995

* Sterilized Minisarts are individually packaged. If not stated otherwise, Minisarts are sterilized by ethylene oxide.
\#-mark indicates sterilization by gamma irradiation
Minisarts NOT presterilized: SFCA can be sterilized by ethylene oxide or gamma irradiation. PTFE can be sterilized by ethylene oxide.
a Connector inlet: Male Luer slip (all other Minisarts have female luer lock inlets)
b Hose barbs, inlet and outlet, 5 mm diameter

Sartolab® Filter Units

Sterile Filtration of Sample Volumes Up to 5 Liter

Sartolab® filters are ready-to-use filtration units for sterile filtration of tissue culture media and components, biological fluids, and other aqueous solutions. The large filtration area and the optimal design guarantees high flow rates with high total throughputs. Sartolab® P20 disposable filters are designed for pressure filtration of volumes from 100 ml to 5 l. Sartolab® RF/BT or 150V filter systems are designed for the vacuum filtration of volumes from 100 ml to 15 l.

Features & Benefits

Lowest adsorption with Sartolab P20 SFCA
For lowest unspecific binding and minimal loss of solved reagents, biomolecules and drugs

Highest flow rates with Sartolab P20 PES
For fastest processing of solutions

High total throughput
For optimal filtration volumes

Applications

– Sterile filtration of media and aqueous solutions
– Filtration of sera and difficult-to-filter solutions with Sartolab® P20 Plus including incorporated prefilter

Pricing & Specifications

Model	Pore Size	Membrane	Housing	Inlet	Outlet	Sterile	Qty/Pk	US List Price ($)
Sartolab® P20								
18052----------D	0.2µm	SFCA	PC	Hose Nipple	Hose Nipple	Yes	10	86
18053----------D	0.2µm	SFCA	PC	Luer Lock	Hose Nipple	Yes	10	86
18075----------D	0.2µm	PES	PC	Luer Lock	Hose Nipple	Yes	10	86
Sartolab® P20 Plus								
18056----------D	0.2µm	SFCA + GF	PC	Hose Nipple	Hose Nipple	Yes	10	121
18058----------D	0.2µm	SFCA + GF	PC	Luer Lock	Hose Nipple	Yes	10	121
18068----------D	0.2µm	PES + GF	PC	Luer Lock	Hose Nipple	Yes	10	121

SFCA - Cellulose Acetate, PES - Polyethersulfone, GF - Glass Fiber Prefilter, PC - Polycarbonate

Sartolab® RF/BT & Sartolab® 150V

Vacuum Filter Systems and Bottle Top Filters

Features

– **Sartolab RF and BT units with optimized support grid**
  For maximum flow rate, reduced foaming and protein denaturation

– **Sartolab RF and BT units with enlarged, square filtration area**
  For higher total throughput and optimized preparation time

– **Sartolab® 150V capsule with 150 cm2 pleated PES membrane surface**
  For highest filtration volumes up to 15 l

Applications

– Vacuum filtration of tissue culture media and components, biological fluids, and other aqueous solutions
– Sartolab® RF including receiver flasks – A complete systems including storage containers for storage down to –20°C
– Sartolab® BT bottle top filters – A gasket design ensures a vacuum-tight seal with freely chosen receiver bottles
– Sartolab® 150V capsules – Compatible for various receiver flask bottle neck diameters for collection of high filtrate volumes in receiver flasks free of choice

Pricing & Specifications

Model	Volume	Filter Area	Membrane	Qty/Pk	US list Price ($)
Sartolab® RF Filtration System Including Collection Bottle					
180C1----------E	150 ml	18 cm^2	0.2 µm PES	12	82
180C7----------E	250 ml	24 cm^2	0.2 µm PES	12	92
180C2----------E	500 ml	39 cm^2	0.2 µm PES	12	151
180C3----------E	1,000 ml	62 cm^2	0.2 µm PES	12	220
180C8----------E	1,000 ml	62 cm^2	0.1 µm PES	12	230
Sartolab 150V Filtration Capsule					
18080----------M	n/a	150 cm^2	0.22 µm PES	3	101
Sartolab® BT Bottle Top Filters Without Integrated Collection Bottle					
180C4----------K	0.2µm	18 cm^2	0.2 µm PES	48	255
180C5----------E	0.2µm	39 cm^2	0.2 µm PES	12	96
180C6----------E	0.2µm	62 cm^2	0.2 µm PES	12	147

Ultrafiltration Membrane Discs

For Flexible Sample Concentration

Ultrafiltration membrane discs for sample concentration in e.g. stirred cells, available in three different materials: Polyethersulfone (PES) with high flux, no hydrophobic or hydrophilic interactions and low fouling characteristics, cellulose triacetate (CTA) for high hydrophilicity and high ultrafiltrate recovery and Hydrosart® modified regenerated cellulose for extremely low protein binding and extended chemical resistance. Our ultrafiltration membrane discs are available in different MWCOs and diameters.

Specifications & Pricing

Model	Molecular Weight Cut-Off (MWCO) in daltons	Diameter (mm)	Qty. PK	US List Price ($)
Polyethersulfone				
14609--47------D	1,000	47	10	87
14609--63------D	1,000	63	10	106
14609--76------D	1,000	76	10	176
14629--25------D	5,000	25	10	65
14629--47------D	5,000	47	10	90
14629--63------D	5,000	63	10	125
14629--76------D	5,000	76	10	207
14639--25------D	10,000	25	10	65
14639--63------D	10,000	63	10	125
14639--76------D	10,000	76	10	207
14639-150------D	10,000	150	10	390
14659--25------D	30,000	25	10	56
14659--63------D	30,000	63	10	125
14659--76------D	30,000	76	10	207
14650--25------D	50,000	25	10	56
14650--47------D	50,000	47	10	90
14650--76------D	50,000	76	10	176
14679--25------D	300,000	25	10	60
14679--47------D	300,000	47	100	90
14679--76------D	300,000	76	10	176
Hydrosart				
14429--25------D	5,000	25	10	81
14429--44------D	5,000	44	10	107
14429--63------D	5,000	63	10	156
14429--76------D	5,000	76	10	255
14439--25------D	10,000	25	10	81
14439--47------D	10,000	47	10	110
14439--63------D	10,000	63	10	156
14439--76------D	10,000	76	10	255
14459--25------D	30,000	25	10	70
14459--47------D	30,000	47	10	110
14459--63------D	30,000	63	10	156
14459--76------D	30,000	76	10	220

Model	Molecular Weight Cut-Off (MWCO) in daltons	Diameter (mm)	Qty. PK	US List Price ($)
Cellulose Triacetate				
14429--25------D	5,000	25	10	81
14429--44------D	5,000	47	10	107
14429--63------D	5,000	63	10	156
14429--76------D	5,000	76	10	156
14439--25------D	10,000	25	10	81
14439--47------D	10,000	47	10	84
14439--63------D	10,000	63	10	156
14439--76------D	10,000	76	10	255
14459--25------D	30,000	43	10	80
14459--47------D	30,000	47	10	tbd
14459--63------D	30,000	63	10	135
14459--76------D	30,000	76	10	tbd

Hydrophobic PTFE
Membrane Filters

For filtration of air, gases or chemicals. These filters are made of PTFE (polytetrafluorethylene) only and are therefore permanently hydrophobic. Unlike other (hydrophilic) filter types, they are not wetted by air humidity, allowing unhindered passage of air at low differential pressures as well. PTFE membrane filters have an excellent chemical compatibility (pH 1-14), so that they are also used for the filtration of solvents and acids, to which other filter types are not resistant. Due to their hydrophobic characteristics, they must be pre-wetted with ethanol or methanol before the filtration of aqueous media.
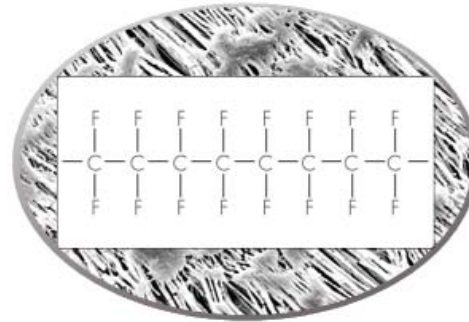
Features

– Resistant to all known solvents (pH 1-14)
– Very low protein binding
– Hydrophobic
– Good thermal resistance up to 200 °C
– Available in pore sizes 0.2, 0.45, 1.2 & 5 µm

Applications

– Particle removal in solvents
– Sterile venting
– Filtration of air & gases (environment)

Specifications & Pricing

Model	Grade	Pore Size (µm)	Thickness (µm)	Bubble point (bar)	Isopropanol flow rate (ml/min/cm²/bar)	Diameter (mm)	Qty. per pack	US List Price ($)
11807--13------N	11807	0.2	65	1.0	11	13	100	220
11807--25------N						25	100	260
11807--47------N						47	100	391
11807--50------N						50	100	391
11807--90------G						90	25	391
11807-100------G						100	25	391
11806--13------N	11806	0.45	80	0.8	20	13	100	220
11806--25------N						25	100	260
11806--37------N						37	100	391
11806--47------N						47	100	391
11806--50------N						50	100	391
11806--90------G						90	25	391
11806-100------G						100	25	391
11803--13------N	11803	1.2	100	0.45	80	13	100	260
11803--25------N						25	100	291
11803--47------N						47	100	391
11803--50------N						50	100	391
11803--90------G						90	25	391
11803-100------G						100	25	391
11842--25------N	11842	5	100	0.10	210	25	100	300
11842--42------N						42	100	382
11842--47------G						47	25	382
11842--47------N						47	100	391
11842--50------N						50	100	391
11842-100------G						100	25	391

Cellulose Nitrate
Membrane Filters

Cellulose nitrate membrane filters are indicated for many general laboratory applications where a membrane with a high non-specific adsorption is suitable. They are hydrophilic, have high flow rates thanks to their symmetric structure and are compatible with aqueous solutions (pH 4-8), hydrocarbons and several other organic solvents. The cellulose nitrate membranes are available in different pore sizes from 0.2 µm to 8 µm.
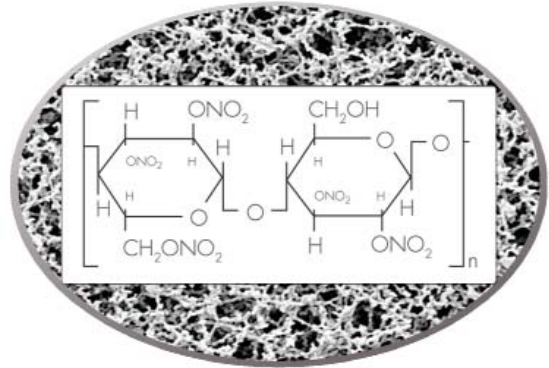
Features

– High protein adsorption
– Hydrophilic
– High flow rates
– Compatible with aqueous solutions (pH 4-8), hydrocarbons and several other organic solvents
– Available in pore sizes from 0.2 µm to 8 µm

Applications

– General laboratory applications where a high non-specific adsorption is suitable
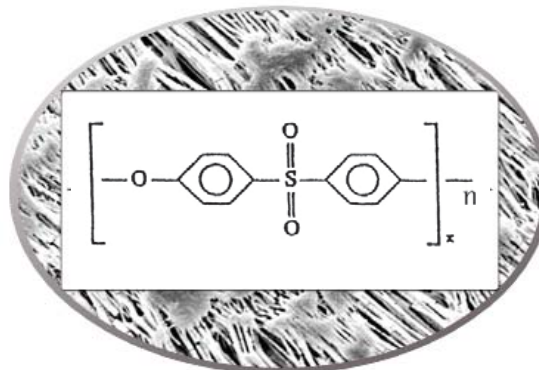– Particle and cell retention in aqueous solutions & air

Specifications & Pricing

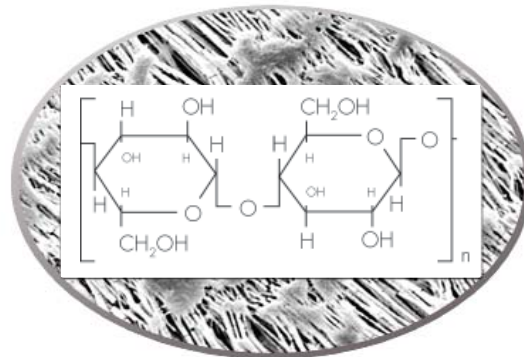| Model	Grade	Pore Size (µm)	Thickness (µm)	Bubble point (bar)	Water flow rate (ml/min/cm²/bar)	Burst pressure (bar)	Diameter (mm)	Qty. per pack	US List Price ($)
11627--25------N	11627	0.2	130	4.2	25	≥ 0.35	25	100	78
11606--13------N	11606	0.45		2.4	70	≥ 0.3	13	100	88
11606--20------N							20	100	102
11606--25------N							25	100	109
11606--30------N							30	100	130
11606--37------N							37	100	148
11606--47------N							47	100	124
11606--50------N							50	100	124
11606--85------N							85	100	474
11606--90------G							90	25	463
11606--90------N							90	100	463
11606-100------G							100	25	174
11606-100------N							100	100	502
11606-110------N							110	100	535
11605--13------N	11605	0.65	130	2	130	≥ 0.25	13	100	114
11605--25------N							25	100	107
11605--47------N							47	100	148

Specifications & Pricing

Model	Grade	Pore Size (µm)	Thickness (µm)	Bubble point (bar)	Water flow rate (ml/min/cm²/bar)	Burst pressure (bar)	Diameter (mm)	Qty. per pack	US List Price ($)
11605--50------N							50	100	114
11605-100------N							100	100	629
11604--13------N	11604	0.8	130	1.4	200	≥ 0.2	13	100	75
11604--20------N							20	100	120
11604--25------N							25	100	99
11604--37------N							37	100	120
11604--47------N							47	100	139
11604--50------N							50	100	139
11604--90------G							90	25	195
11604-100------G							100	25	139
11603--13------N	11603	1.2	130	1	200	≥ 0.2	13	100	99
11603--25------N							25	100	88
11603--47------N							47	100	158
11603--50------N							50	100	137
11603--90------G							90	25	198
11603-100------G							100	25	137
11602--13------N	11602	3	130	0.5	430	≥ 0.2	13	100	75
11602--25------N							25	100	99.
11602--47------N							47	100	125
11602--50------N							50	100	137
11602--90------G							90	25	198
11602-100------G							100	25	153
11642--13------N	11642	5	130	0.5	570	≥ 0.15	13	100	99
11642--25------N							25	100	125
11642--47------N							47	100	164
11642--50------N							50	100	175
11642--90------G							90	25	221
11642-100------G							90	25	221
11601--13------N	11601	8	130	0.3	750	≥ 0.1	13	100	221
11601--25------N							25	100	99
11601--37------N							37	100	125
11601--47------N							47	100	162
11601--50------N							50	100	137
11601--70------G							70	25	138
11601-100------G							100	25	153
11601-100------N							100	100	443

Cellulose Acetate
Membrane Filters

Cellulose acetate membranes combine high flow rates and thermal stability with very low adsorption characteristics, and are therefore excellently suited for use in pressure filtration devices. They are hydrophilic, have high flow rates thanks to their symmetric structure and are compatible with aqueous solutions (pH 4–8), oils, alcohols and other organic solvents. The 0.2 μm membrane is the filter of choice for sterile filtration of aqueous solutions, such as nutrient media, buffers and sera.
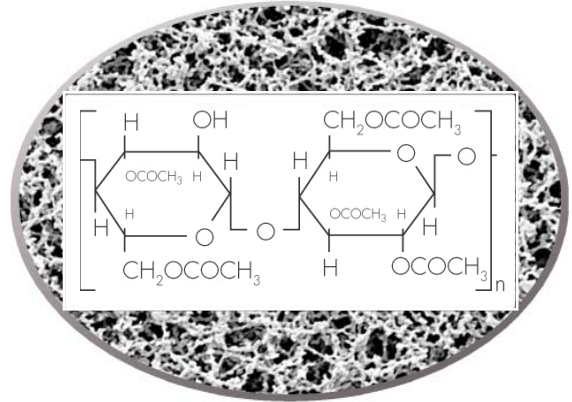
Features

– Very low protein adsorption
– High flow rates
– Thermal stable
– Compatible with aqueous solutions (pH 4–8), oils, alcohols and other organic solvents
– Available in pore sizes from 0.2 μm to 5 μm

Applications

– Particle removal & retention
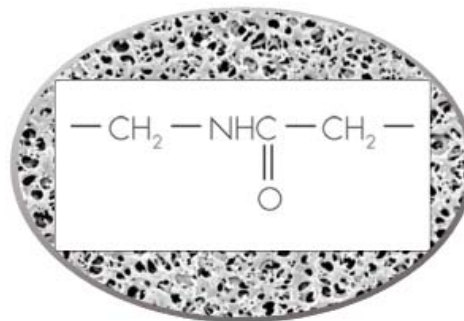– Sterility testing
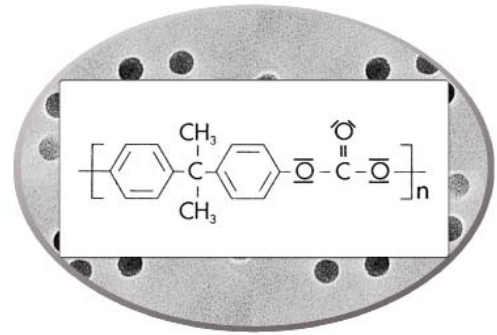– Use in pressure filtration devices

Specifications & Pricing

Model	Grade	Pore Size (µm)	Thickness (µm)	Bubble point (bar)	Water flow rate (ml/min/cm²/bar)	Burst pressure (bar)	Diameter (mm)	Qty. per pack	US List Price ($)
11507--13------N	11507	0.2	120	2.9	24	0.8	13	100	63
11507--25------N							25	100	75
11507--30------N							30	100	101
11507--47------N							47	100	99
11507--50------N							50	100	99
11507--90------G							90	25	114
11507-100------G							100	25	114
11507-100------N							100	100	227
11506--13------N	11506	0.45	120	1.9	69	0.7	13	100	31
11506--25------N							25	100	31
11506--30------N							30	100	26
11506--37------N							37	100	53
11506--47------N							47	100	97
11506--50------N							50	100	56
11506--85------N							85	100	433
11506--90------G							90	25	114
11506-100------G							100	25	31
11506-100------N							100	100	407
11506-110------N							110	100	445
11505--25------N	11505	0.65	120	1	200	0.5	25	100	62
11505--47------N							47	100	62
11505--50------N							50	100	62
11505--90------G							90	25	63
11504--13------N	11504	0.8	120	1	200	0.5	0.413	100	116
11504--25------N							25	100	200
11504--47------N							47	100	92
11504--50------N							50	100	103
12303--25------N	12303	1.2	140	0.8	320	0.4	25	100	345
12303--47------N							47	100	345
12303--50------N							50	100	345
12303-100------G							100	25	345
12342--25------N	12342	5	140	0.4	570	0.25	25	100	130
12342--47------N							47	100	180

Polyethersulfone
Membrane Filters

Polyethersulfone (PES) membrane filters are hydrophilic, have high flow rates thanks to their symmetric structure, have a low non-specific protein adsorption and are chemically resistant over a pH range of 1-14. They are therefore recommended for the filtration of aqueous solutions as well as for the filtration of protein. Furthermore, the low level of extractables makes them suitable for environmental analysis.

Features

- Low protein binding
- Low level of extractables
- Hydrophilic
- High flow rates
- High thermal resistance with max. 200°C
- High solvent resistance (pH 1-14)
- Available in pore sizes 0.1, 0.2 & 0.45 µm

Applications

- Filtration of aqueous solutions
- Filtration of cell culture media, buffers
- Environmental analyses

Specifications & Pricing

Model	Grade	Pore Size (µm)	Thickness (µm)	Bubble point (bar)	Water flow rate (ml/min/cm²/bar)	Burst pressure (bar)	Diameter (mm)	Qty. per pack	US List Price ($)
15458--25------N	15458	0.1	150	3.8	10	≥ 0.6	25	100	115
15458--47------N							47	100	165
15458--50------N							50	100	165
15407--25----MIN	15407	0.2	150	3.5	25	≥ 0.5	25	100	115
15407--47----MIN							47	100	115
15407--50----MIN							50	100	165
15406--25------N	15406	0.45	150	2.6	46	≥ 0.5	25	100	171
15406--47------N							47	100	165
15406--50------N							50	100	157

Regenerated Cellulose
Membrane Filters

These very low adsorption membranes are hydrophilic, solvent-resistant (pH 3 – 12) and therefore suited for the particle removal from solvents. The membrane is asymmetric and reinforced with nonwoven cellulose.

Features

– Very low non-specific adsorption
– Hydrophilic
– High thermal resistance with max. 200°C
– High solvent resistance (pH 3-12)
– Available in pore sizes 0.2 µm & 0.45 µm

Applications

– General purpose filtration
– Particle removal from solvents
– Degassing

Specifications & Pricing

Model	Grade	Pore Size (µm)	Thickness (µm)	Bubble point (bar)	Water flow rate (ml/min/cm²/bar)	Diameter (mm)	Qty. per pack	US List Price ($)
18407--13------N	18407	0.2	170	4.4	15	13	100	115
18407--25------N						25	100	126
18407--47------N						47	100	165
18407--50------N						50	100	165
18407-100------G						100	25	165
18406--13------N	18406	0.45	170	2.9	30	100	100	115
18406--25------N						100	100	126
18406--47------N						100	100	165
18406--50------N						100	100	285
18406-100------G						100	25	126

Polyamide
Membrane Filters

Polyamide membrane filters are hydrophilic and chemically resistant to alkaline solutions and organic solvents. They are therefore recommended for the particle removal from aqueous solutions and solvents for analytical determination such as HPLC, for the sterile filtration of these liquids as well as for applications where a membrane with a relatively high non-specific adsorption is suitable.

Features

– High protein adsorption
– Low level of extractables
– Hydrophilic
– Compatible with a broad range of solvents (pH 3-14)
– Available in pore sizes 0.2 µm & 0.45 µm

Applications

– Applications where a non-specific adsorption is suitable
– Particle removal
– Filtration of alkaline solutions

Specifications & Pricing

Model	Grade	Pore Size (µm)	Thickness (µm)	Bubble point (bar)	Water flow rate (ml/min/cm²/bar)	Burst pressure (bar)	Diameter (mm)	Qty. per pack	US List Price ($)
25007--13------N	25007	0.2	115	3.2	15	≥ 0.25	13	100	62
25007--25------N							25	100	140
25007--47------N							47	100	140
25007--50------N							47	100	123
25007--90------G							90	25	115
25006--13------N	25006	0.45	115	2.3	35	≥ 0.25	13	100	62
25006--25------N							25	100	137
25006--47------N							47	100	115
25006--50------N							47	100	156
25006--90------G							90	25	115

Polycarbonate Track-Etched

Membrane Filters

These white and hydrophilic polycarbonate track-etched membranes are manufactured from high grade polycarbonate film using track-etch technology. Their capillary pore structure is uniform and precise, with a narrow pore size distribution to retain particles on their surface. Track-etched membranes are an excellent choice for accurate fractionation of particulates because of their precise pore size. Track-etch technology offers the user distinct performance advantages with excellent surface capture and high sample visibility.

Features

– True pore size
– Low protein binding
– Low extractables
– Hydrophilic
– Available in defined pore sizes 0.2, 0.4 µm

Applications

– Particulate analyses
– Cytotology
– Epifluorescence Microscopy
– Environmental analyses

Specifications & Pricing

Model	Grade	Pore Size (µm)	Thickness (µm)	Bubble point (bar)	Water flow rate (ml/min/cm²/0.7 bar)	Burst pressure (bar)	Diameter (mm)	Qty. per pack	US List Price ($)
23007--25------N	23007	0.2	25	4.8	≥ 10	≥ 0.7	25	100	115
23007--47------N	23007	0.2	25	4.8	≥ 10	≥ 0.7	47	100	165
23007--50------N	23007	0.2	25	4.8	≥ 10	≥ 0.7	50	100	165
23006--25------N	23006	0.4	25	2.5	≥ 30	≥ 0.7	25	100	115
23006--47------N	23006	0.4	25	2.5	≥ 30	≥ 0.7	47	100	165

Re-usable Syringe Filter Holders

For the Ultracleaning of volumes up to 100 ml

The re-usable syringe filter holders are available in PTFE, polycarbonate and stainless steel. With their Luer Lock connectors, they are easy to use with a standard syringe and can be autoclaved.

Features

– Easy connection with Luer connectors
(Female Luer Lock inlet, luer slip outlet)
– Low hold-up volumes
– Autoclavable
– Re-usable

Applications

– Particle removal from samples and reagents
– Filtration of aqueous liquids
– Clarification
– Sterile filtration

Specifications & Pricing

Model	Material	Filtration area (cm²)	Membrane filter dia. (mm)	Max. autoclaving temperature (°C)	Hold–up volume (ml)	Max. operating procedure	Qty/Pack	US List Price ($)
16574	PTFE	0.5	13	134	0.3	5 bar/ 500 kPa/ 72.5 psi	1	310
16514-----E	Polycarbonate	0.5	13	121	0.2	7 bar/ 700 kPa/ 101.5 psi	12	86
16517-----E	Polycarbonate	3	25	121	0.3	7 bar/ 700 kPa/ 101.5 psi	12	91
16214	Stainless steel	3	25	134	0.1	7 bar/ 700 kPa/ 101.5 psi	1	235

Glass Vacuum Filter Holders

For Aqueous and Organic Solvent Filtration

The vacuum filter holders are produced from borosilicate glass with a choice between two different support screens. The glass frit support ensures uniform distribution of retained particles and is therefore recommended, when the residue on the filter surface is of interest. The PTFE-coated support is easy to clean and is therefore recommended when the filtrate is required or when liquids difficult to remove from glass frits must be examined.

Features

– Borosilicate glass material
– Chemically resistant to most aqueous and solvent solutions
– Sterilizable by autoclaving (max. 134°C) or by dry heat (max. 180°C)
– Vacuum filtration

Applications

– General laboratory filtration
– Sterility testing
– Microbial enumeration

Specifications & Pricing

Model	Membrane filter diameter (mm)	Filtration area (cm²)	Funnel capacity (ml)	Capacity of the filtrate flask (l)	Filter support material	O-ring Material	Outlet spouts (mm)	Qty/Pack	US List Price ($)
16306	24 or 25	3	30	n.a.	Glass	Silicone	12	1	171
16315	24 or 25	3	30	n.a.	PTFE-coated	Silicone	12	1	256
16307	47 or 50	12.5	250	n.a.	Glass	Silicone	15	1	295
16316	47 or 50	12.5	250	n.a.	PTFE-coated	Silicone	15	1	365
16309	47 or 50	12.5	250	1	Glass	Viton	15	1	575

Filter Holders for In-Line Filtration

For the filtration of liter volumes of aqueous solutions

The in-line holders are available in stainless steel and Polycarbonate. They can be connected to a pump or a pressure container thanks to an excellent resistance to pressure.

Features

– Autoclavable
– Leak-proof sealing
– Hose nipple connectors

Applications

– In-Line filtration

Specifications & Pricing

Model	Material	Filtration area (cm²)	Membrane filter dia. (mm)	Max. autoclaving temperature (°C)	Max. operating procedure	Connectors	Qty/Pack	US List Price ($)
16508------B	Polycarbonate	12.5	50	121	7 bar/ 700 kPa/ 101.5 psi	Hose nipples for 10 mm hose	5	235
16251	Stainless steel	3	25	134	5 bar/ 500 kPa/ 72.5 psi	Hose nipples for 10 mm hose	1	310
16254	Stainless steel	13	47	134	20 bar/ 2,000 kPa/ 290 psi	Hose nipples for 10 mm hose	1	585
16278	Stainless steel	13	47	134	20 bar/ 2,000 kPa/ 290 psi	Hose nipples for 4–5 mm hose	1	470

Pressure Filter Holders

For the filtration of aggressive liquids

The pressure filter holders are available either in PTFE or stainless steel. The PTFE holder is resistant to almost all chemicals and has a filtration capacity of 200 ml. The stainless steel version can be used for the filtration of small volumes when connected directly to a pressure source or for the filtration of up to 5 liter volumes when used in combination with a pressure tank. The stainless steel version is also available with a double jacket to keep the temperature of the solution filtered stable.

Features

– Chemically resistant to most aqueous and solvent solutions
– Sterilizable by autoclaving (max. 134°C) or by dry heat (max. 180°C)

Applications

– General laboratory filtration
– Sterility testing

Specifications & Pricing

Model	Description	Filtration area (cm²)	Membrane filter dia. (mm)	Max. autoclaving temperature (°C)	Max. operating procedure	Connectors	Qty/Pack	US List Price ($)
16579	PTFE pressure filter holder with 200 ml capacity	12.5	47	134	5 bar 500 kPa 72.5 psi	M 14 x 1.5 male thread	1	2,580
16249	Stainless steel pressure filter holder up to 200 ml capacity	13	47	134	10 bar 1,000 kPa 145 psi	M 12 x 1 female thread	1	990
16249-----3	Double jacket stainless steel pressure filter holder up to 200 ml capacity	13	47	134	10 bar 1,000 kPa 145 psi	M 12 x 1 female thread	1	990

Sterile Membrane Filters

Cellulose Nitrate (Cellulose Mixed Ester), Gridded

Sterile, individually packaged filters have long become standard for routine microbiological quality control because of the user benefits they offer. They are pre-sterilized and ready-to-use and save preparatory time. As they are individually packaged, they avoid the possibility of contamination of remaining filters in opened packs and conform to GLP, having filter identification and lot number printed on each individual envelope.
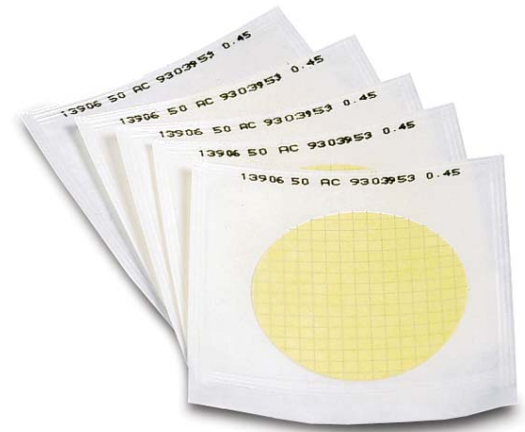
Feature

– Outstanding recovery rates for microorganisms
– 0.45 µm are acc. to ISO 7704
– High flow membranes available
– Three different colors available
– Certified quality
– Gamma irradiated, 25 kGray
– Shelf life: 4 years

Applications

– Microbial enumeration
– Particle testing
– Microscopy

Specifications and Pricing

White Membrane with Black Grid, for Detection of Bacteria with Dyed Media, Particle Count & Microscopy, Type 114, Individually. Sterile Packaged

Model	Pore Size	Diameter	Pack Size	US List Price ($)
11407--47----ACN		47 mm	100	114
11407--47----ACR	0.2 µm	47 mm	1,000	510
11407--50----ACN		50 mm	100	116
11407--50----ACR		50 mm	1,000	515
11406--47----ACN		47 mm	100	114
11406--47----ACR	0.45 µm	47mm	1,000	510
11406--50----ACN		50 mm	100	116
11406--50----ACR		50 mm	1,000	515
114H6--47----ACN		47 mm	100	114
114H6--47----ACR	0.45 µm	47 mm	1,000	510
114H6--50----ACN	High Flow*	50 mm	100	114
114H6--50----ACR		50 mm	1,000	515
11405--47----ACN	0.65 µm	47 mm	100	114
11405--50----ACN		50 mm	100	116
11404--25----ACN		47 mm	100	114
11404--47----ACR	0.8 µm	47 mm	1,000	510
11404--50----ACN		50 mm	100	116
11403--25----ACN		47 mm	100	114
11403--47----ACR	1.2 µm	47 mm	1,000	510
11403--50----ACN		50 mm	100	116
11403--50----ACR		50 mm	1,000	515

White Membrane with Green Grid, for Detection of Bacteria with Dyed Media, Particle Count & Microscopy, Type 139, Individually, Sterile Packaged

Model	Pore Size	Diameter	Pack Size	US List Price ($)
13906--47----ACN		47mm	100	114
13906--47----ACR	0.45 µm	47 mm	1,000	511
13906--50----ACN		50 mm	100	116
13906--50----ACR		50 mm	1,000	516
139H6--47----ACN	0.45 µm	47 mm	100	114
139H6--47----ACR	High Flow*	47 mm	1,000	511
139H6--50----ACN		50 mm	100	116
13905--47----ACN	0.65 µm	47 mm	100	114
13903--47----ACN	1.2 µm	47 mm	100	114

Green Membrane with Dark Green Grid, Providing Optimal Contrast to Light-Colored or Transparent Bacteria Colonies, Type 138, Individually, Sterile Packed

Model	Pore Size	Diameter	Pack Size	US List Price ($)
13806--47----ACN		47mm	100	114
13806--47----ACR	0.45 µm	47 mm	1,000	511
13806--50----ACN		50 mm	100	116
13806--50----ACR		50 mm	1,000	516

Gray membrane (after wetting, black) with white grid, for detection of yeasts and molds, particle count and microscopy, type 130, individually, sterile packaged

Model	Pore Size	Diameter	Pack Size	US List Price ($)
13006--47----ACN		47 mm	100	114
13006--47----ACR	0.45 µm	47 mm	1,000	510
13006--50----ACN		50 mm	100	114
13006--50----ACR		50 mm	1,000	515
13005--47----ACN		47 mm	100	114
13005--50----ACN	0.65 µm	50 mm	100	116
13005--50----ACR		50 mm	1,000	515
13004--47----ACN		47 mm	100	114
13004--47----ACR	0.8 µm	47 mm	1,000	510
13004--50----ACN		50 mm	100	114

Microsart® e.motion

Fully Automated Filter Dispenser and Membrane Filters

The Microsart® e.motion dispenser meets all requirements placed on advanced laboratory equipment. The membrane filters are released fully automatically at the touch of a button or hands-free – a dispensing operation is triggered when the optical sensor detects approaching tweezers. The membrane filter band specially designed for the Microsart® e.motion can be conveniently inserted and changed easily and rapidly as needed.

Features

Microsart® e.motion Dispenser

– Fully automated membrane filter dispenser
– Works hands-free by an optical sensor
– Works by touch button
– Compact design
– Rapid reliable transport due to sprocket feed roll technology
– Easy insertion of the filter band
– Easy-to-clean

Microsart® e.motion Membranes

– Outstanding recovery rates for microorganisms
– 0.45 µm are acc. to ISO 7704
– Multi-fit: Fits into various dispensers
– Protective paper-free
– Packaged on a special pleated band
– Product data are printed on
– High Flow membranes available
– Gamma irradiated, 25 kGray

Applications

– Microbial enumeration
– Particle testing
– Microscopy

Microsart® e.motion Specifications & Pricing

Model	Description	US List Price ($)
16712	Microsart® e.motion dispenser, fully automated membrane filter dispenser	1,346
1ZE---0028	Foot switch for Microsart® **e.motion dispenser**	65

Membrane Filters Specifications & Pricing

Diameter 47 mm or 50 mm, in Pack of 3 x 100 Membranes, Individually Sterile Packaged, Without Protective Paper

Model	Membrane Filter Color | Grid Color	Diameter	Pack Size	US List Price ($)
11407Z-47----SCM	White | black	47 mm	0.2 µm	184
11407Z-50----SCM	White | black	50 mm	0.2 µm	184
114H6Z-47----SCM	White | black	47 mm	0.45 µm High Flow	184
114H6Z-50----SCM	White | black	50 mm	0.45 µm High Flow	184
11406Z-47----SCM	White | black	47 mm	0.45 µm	184
11406Z-50----SCM	White | black	50 mm	0.45 µm	184
11404Z-47----SCM	White | black	47 mm	0.8 µm	184
11403Z-47----SCM	White | black	47 mm	1.2 µm	184
11403Z-50----SCM	White | black	50 mm	1.2 µm	184
11402Z-47----SCM	White | black	47 mm	3 µm	184
139H6Z-47----SCM	White | green	47 mm	0.45 µm High Flow	184
13906Z-47----SCM	White | green	47 mm	0.45 µm	184
13906Z-47----SCM	White | green	47 mm	0.45 µm	184
13906Z-50----SCM	Green | dark green	50 mm	0.45 µm	184
13806Z-47----SCM	Green | dark green	47 mm	0.45 µm	184
130H6Z-50----SCM	Gray*| white	50 mm	0.45 µm High Flow	184
13006Z-47----SCM	Gray*| white	47 mm	0.45 µm	184
13006Z-50----SCM	Gray*| white	50 mm	0.45 µm	184
13005Z-47----SCM	Gray*| white	47 mm	0.65 µm	184
13005Z-50----SCM	Gray*| white	50 mm	0.65 µm	184
13004Z-47----SCM	Gray*| white	47 mm	0.8 µm	184
13004Z-50----SCM	Gray*| white	50 mm	0.8 µm	184
114H6Z-47----SFM	white | black	47mm	0.45 µm	265
11302Z-47----SFM	white	47mm	3 µm	250
11402Z-47----SFM	white | black	47mm	3 µm	250

Sterile Membrane Filters without Grid

Cellulose Nitrate (Cellulose Mixed Ester) and Cellulose Acetate

Sterile, individually packaged filters have long become standard for routine microbiological quality control because of the user benefits they offer. They are pre-sterilized and ready-to-use and save preparatory time. As they are individually packaged, they avoid the possibility of contamination of remaining filters in opened packs and conform to GLP, having filter identification and lot number printed on each individual envelope.
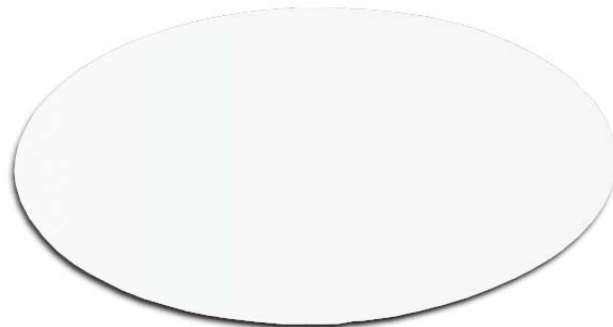
Features

– Outstanding recovery rates for microorganisms
– Defined particle retention
– 0.45 μm are acc. to ISO 7704
– 0.2 μm are validated by BCT
– Three different colors available
– Certified quality
– Gamma irradiated, 25 kGray

Applications

– Microbial enumeration
– Particle testing
– Microscopy

Specifications & Pricing

Cellulose Nitrate Membrane Filters, White, for Colony Counting, Sterility Testing, Particle Count & Microscopy. Type 113, Individually, Sterile Packaged

Model	Pore Size	Diameter	Pack Size	US List Price ($)
11306--25----ACN		25 mm	100	tbd
11306--47----ACN	0.45 μm	47 mm	100	114
11306--50----ACN		50 mm	100	116
11305--47----ACN	0.65 μm	47 mm	100	172
11305--50----ACN		50 mm	100	183
11304--47----ACN	0.8 μm	47 mm	100	172
11304--50----ACN		50 mm	100	183
11303--47----ACN	1.2 μm	47 mm	100	222
11303--50----ACN		50 mm	100	233
11302--47----ACN	3 μm	47 mm	100	222
11302--50----ACN		50 mm	100	222
11301--47----ACN	8 μm	47 mm	100	172
11301--50----ACN		50 mm	100	179

Cellulose Acetate Membrane Filters, White, for Colony Counting, Sterility Testing, Particle Count & Microscopy, Type 111, Individually, Sterile Packaged

Model	Pore Size	Diameter	Pack Size	US List Price ($)
11107--47----ACN	0.2 μm	47 mm	100	135
11107--50----ACN		50 mm	100	140
11106--47----ACN	0.45 μm	47 mm	100	135
11106--50----ACN		50 mm	100	140
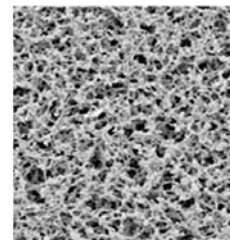
Nutrient Pad Sets

Dehydrated Media Pads in Petri Dishes with Matching Membrane Filters

Nutrient pads are sterile, dehydrated culture media. Once they are moistened with 3.0–3.5 ml of sterile and demineralized (or distilled) water they are ready to use immediately. Practical and easy to handle, they reduce labor and simplify many microbiological testing procedures. All Nutrient Pad Set types are supplied with the appropriate membrane filters, which are also pre-sterilized and individually packaged.

Features & Benefits

Economical
Eliminates time-consuming and labor-intensive preparation of culture media (sterilization and cleaning, among others)

Simple to use
Nutrient Pad Sets can also be used in laboratories which do not have extensive microbiological equipment. Sterile water for moistening the pads can be added easily with a Sartorius Stedim Biotech Dosing Syringe and an attached Syringe Filter Holder (0.2 μm) or with an ampoule with sterile water.

Consistent quality
During manufacture, each type of Nutrient Pad Set is compared with the corresponding agar medium with respect to their growth-promoting properties. This QA procedure ensures consistently quality and reproducible results.

Trouble-free storage
Nutrient Pad Sets have a shelf life up to 24 months at room temperature.

Highly versatile
Nutrient Pad Sets can be modified by additives in the solution used to wet them; for example, Wort or Orange Serum Nutrient Pads when wetted with 5 – 8% ethanol promote the growth of acetic-acid bacteria.

Applications

– Microbial quality control of liquid products in water testing and beverage industry

Pricing & Specifications

Model	Determination of	NPS Type	Pore Size	Mb Color/ Grid Color	Qty.	US List Price ($)
Nutrient Pad Sets for Total Colony Count, 47mm – Sterile						
14063--47------N	Total colony count	Caso	0.45 µm	Green/Dark Green	100	186
14084--47------N	Total colony count	R2A	0.45 µm	Green/Dark Green	100	186
14064--47------N	Total colony count	Standard	0.45 µm	Green/Dark Green	100	186
14055--47------N	Total colony count	Standard TTC	0.45 µm	Green/Dark Green	100	186
14076--47------N	Total colony count	TGE	0.45 µm	Green/Dark Green	100	186
14090--47------N	Total colony count	Yeast Extract	0.45 µm	Green/Dark Green	100	186
Nutrient Pad Sets for E. coli, Coliforms and Enterobacteria, 47mm – Sterile						
14087--47------N	E. coli and coliforms	Chromocult	0.45 µm	White/Black	100	186
14082--47------N	E. coli	ECD	0.45 µm	White/Green	100	186
14053--47------N	E. coli and coliforms	Endo	0.45 µm	White/Green	100	186
14068--47------N	E. coli and coliforms	m FC	0.45 µm	White/Green	100	186
14097--47------N	Enterobacteria and E. coli	MacConkey	0.45 µm	White/Green	100	186
14067--47------N	E. coli and coliforms	Teepol|Lauryl Sulfate	0.45 µm	White/Green	100	186
14056--47------N	E. coli and coliforms	Tergitol TTC	0.45 µm	White/Green	100	186
Nutrient Pad Sets for other Fecal Bacteria, 47mm – Sterile						
14051--47------N	Enterococci	Azide	0.45 µm	Green/Dark Green	100	186
14057--47------N	Salmonellae	Bismuth Sulfite	0.45 µm	Green/Dark Green	100	186
Nutrient Pad Sets for Non-fecal, Pathogenic Bacteria, 47mm – Sterile						
14075--47------N	Pseudomonas aeruginosa	Cetrimide	0.45 µm	White/Green	100	186
14074--47------N	Staphylococci, Staph. Aureus	Chapman	0.45 µm	White/Green	100	186
Nutrient Pad Sets for Yeasts and Molds, 47mm – Sterile						
14078--47------N	Yeasts and molds	Wort NPS & gridded MF	0.65 µm	Gray*/White	100	186
14061--47------N	Wild yeasts	Lysine	0.65 µm	Gray*/White	100	186
14086--47----CCN	Yeasts and molds	Malt Extract NPS & gridded MF	0.45 µm	Gray*/White	100	186
14080--47------N	Yeasts and molds	m Green NPS & gridded M	0.8 µm	Gray*/White	100	186
14089--47------N	Yeasts and molds	WL Nutrient NPS & gridded MF	0.45 µm	Gray*/White	100	186
14058--47------N	Yeasts and molds	Wort (pH 4.4)	0.65 µm	Gray*/White	100	186
14086--47------N	Yeasts and molds	Malt Extract	0.8 µm	Gray*/White	100	186
14072--47------N	Yeasts and molds	m Green NPS & gridded M	1.2 µm	Gray*/White	100	186
14083--47------N	Yeasts and molds and bacteria	m Green NPS & gridded M	0.45 µm	White/Green	100	186
14069--47------N	Yeasts and molds	Sabouraud NPS & gridded M	0.45 µm	White/Green	100	186
14070--47------N	Yeasts and molds	m Green NPS & gridded M	0.65 µm	White/Green	100	186
Nutrient Pad Sets for Product-spoiling Microorganisms, 47mm – Sterile						
14079--47------N	Leuconostoc oenos and other wine spoiling organ.	Tomato Juice	0.45 µm	Green/Dark Green	100	186
14062--47------N	Acid-tolerant microorganisms	Orange Serum	0.45 µm	Green/Dark Green	100	186
14065--47------N	Mesophilic slime forming bacteria esp. Leuconostoc mesenteroides	Weman	0.45 µm	Green/Dark Green	100	186
14066--47------N	Thermophilic spore formers and mesophilic bacteria	Glucose Tryptone	0.45 µm	White/Green	100	186
14059--47------N	Lactobacilli and Pediococci and other beer spoiling microorg.	VLB-S7-S	0.45 µm	White/Green	100	186
14077--47------N	Lactobacilli and other soft drink-spoiling microorganisms	MRS	0.45 µm	Green/Dark Green	100	186

Biosart® 100 Monitors

Sterile funnels, ready-to-use due to the incorporated membrane filter and cellulose pad

The Biosart® 100 Monitors have been specifically designed for the detection and enumeration of microorganisms in pharmaceuticals, cosmetics, food, beverages, water and other liquids. The monitors are sterile funnels, ready-to-use due to the incorporated membrane filter and cellulose pad. After filtration, just remove the 100 ml funnel to convert the monitor into a petri dish, eliminating the need of membrane manipulation.

Features & Benefits

Superior performance
– High flow rate
– High total throughput

Safe & reliable
– Sterile, individually, sterile packaged available
– Certified membrane filters: meet ISO 7704
– Membranes available in various colors
– Without any hydrophobic adhesive areas validated

Economical
– Ready to connect, easy to use and practical handling features
– Minimal amount of equipment

Applications

– Detection and enumeration of microorganisms in pharmaceuticals, cosmetics, food, beverages, water and other liquids

Specifications & Pricing

Model	Pore Size	Membrane Filter* Color|Grid Color	US List Price ($)
Biosart® 100 Monitors, 100 ml, 47 mm, Individually Packaged, Sterile, 48 Units			
16401-47-07--ACK	0.2 µm	CN white|black	222
16401-47-06--ACK	0.45 µm	CN white|black	222
16402-47-06--ACK	0.45 µm	CN green|dark green	222
16403-47-06--ACK	0.45 µm	CN gray|white**	222
Biosart® 100 Monitors, 100 ml, 47 mm, Packaged on Trays, Sterile, 48 Units			
16401-47-07----K	0.2 µm	CN white| black	140
16401-47-H6----K	0.45 µm High Flow	CN white| black	140
16401-47-06----K	0.45 µm	CN white| black	140
16402-47-06----K	0.45 µm	CN green|dark green	140
16403-47-06----K	0.45 µm	CN gray| white**	140
16403-47-04----K	0.8 µm	CN gray|white**	140
16404-47-06----K	0.45 µm	RC white	140
Biosart® 100 Monitors, 100 ml, 47 mm, Sterile, 48 Units			
16401-47-H6-V--K	0.45 µm High Flow	CN white|black	106
16401-47-06-V--K	0.45 µm	CN white|black	106
16403-47-06-V--K	0.45 µm	CN gray|white**	106
16403-47-04-V--K	0.8 µm	CN gray|white**	106
Biosart® 100 Monitors, 100 ml, 47 mm, Sterile, 48 Units, Membrane Fixed			
16401-47-H6-VWMK	0.45 µm High Flow	CN white|black	106
16401-47-06-VWMK	0.45 µm	CN white|black	106
16403-47-H6-VWMK	0.45 µm High Flow	CN gray|white**	106
16403-47-06-VWMK	0.45 µm	CN gray|white**	106

Accessories

Item	Description	Adaptation	US List Price ($)
16424	Biosart® 100 Adapter, polypropylene and silicone O-ring	Biosart® 100 Monitor onto Sartorius Stedim Biotech stainless steel base 1ZU---0002 Microsart® Base 47 mm (stainless steel base for Combisart® and Microsart® Combi.jet)	14
16415	Biosart® 100 Adapter, polypropylene	Biosart® 100 Monitor onto 50 mm supports (Milliflex)	9
16416	Biosart® 100 Adapter, polypropylene	Biosart® 100 Monitor onto 59 mm supports	9
16417	Biosart® 100 Membrane Lifter, ABS	For easy transfer of the membrane onto agar	7

Biosart® 100 Nutrient Media

Sterile Media Ampoules

Biosart® 100 Nutrient Media are media ampoules for microbiological testing of pharmaceuticals, food, beverages, water and other liquids. The media ampoules are ready-to-use and each box contains 50 ampoules with 2.5 ml sterile nutrient media and a lot-specific certificate. The nutrient media comply with international regulations and recommendations and supersede the handling of glass ampoules.

Features

Safe & reliable
Pre-sterilized media
– Certificate of quality for every batch
– In compliance with international standards
– Consistent recovery

Economical
– Ready-to-use
– Long shelf life

Applications

– Detection and enumeration of microorganisms in pharmaceuticals, cosmetics, food, beverages, water and other liquids

Specifications & Pricing

Model	Determination of	Media Type	US List Price ($)
Biosart 100 Nutrient media, 2.5ml, Individually, Sterile–Packed in Ampoules, 50 Units			
16400-02-----CA-K	Total Count	Caso (acc.USP)	78
16400-02-----RA-K	Total Count	R2A (acc. EP)	78
16400-02-----TC-K	Total Count	TGE │ Total Count	78
16400-02-----TZ-K	Total Count	Total Count TTC	78
16400-02-----EN-K	E.coli and coliforms	m Endo	78
16400-02-----MF-K	E.coli and coliforms	m FC	78
16400-02-----LS-K	E.coli and coliforms	Lauryl Sulfate │ Teepol	78
16400-02-----TT-K	E.coli and coliforms	Tergitol │ TTC	78
16400-02-----KF-K	Enterococci	KF Strep │ Azide	78
16400-02-----CE-K	Pseudomonas aeruginosa	Certimide	78
16400-02-----SB-K	Yeasts and molds	Sabouraud (acc. USP)	78
16400-02-----MG-K	Yeasts and molds	m Green yeast and mold │ Schaufus Pottinger	78
16400-02-----GS-K	Yeasts and molds	m Green yeast and mold selective	78
16400-02-----WZ-K	Yeasts and molds	Wort	78
16400-02-----WN-K	Yeasts and molds and bacterias	WL Nutrient │ Wallerstein Differential	78
16400-02-----WL-K	Bacteria in fermentation process	WL Nutrient │ Wallerstein Differential	78
16400-02-----OS-K	Acid-tolerant microorganisms	Orange Serum	78

Microsart® @filter

Sterile Disposable Filter Units for Advanced Colony Counting

Microsart® @filter 100 and 250 filter units are a ready-to-use combination of funnel, filter base and gridded membrane in one unit. It is possible to choose between two volume sizes, 100 ml and 250 ml, different pore sizes and different filter colors. The filter units exist as tray versions with lids or are stacked in bags for safe removal using the Microsart® Funnel Dispenser.

Specifications & Pricing

Model	Membrane Filter® Color | Grid Color	Pore Size	US List Price ($)
Microsart® @filter 250, Sterile Disposable Filter Units with lid, 47 mm, 250 ml, Packaged on Trays, Ideal for the Use in Clean Benches, 16 Units			
16D01--25-07--TF	CN white | black	0.2	80
16D01--25-H6--TF	CN white | black	0.45, High Flow	80
16D03--25-H6--TF	CN gray | white**	0.45, High Flow	80
16D02--25-06--TF	CN green | dark green	0.45	80
16D03--25-05--TF	CN gray | white**	0.65	80
Microsart® @filter 100, Sterile Disposable Filter Units, 47 mm, 100 ml, Stacked and Packaged in Bags, Ideal for the Use with Microsart® Funnel Dispenser, 60 Units			
16D01--10-07--BL	CN white | black	0.2	230
16D01--10-H6--BL	CN white | black	0.45, High Flow	230
16D03--10-H6--BL	CN gray | white**	0.45, High Flow	230
16D02--10-06--BL	CN green | dark green	0.45	230
16D05--10-06--BL	RC white (w/o grid)	0.45	230
Microsart® @filter 100, Sterile Disposable Filter Units, 47 mm, 100 ml, Stacked and Packaged in Bags, Ideal for the Use with Microsart® Funnel Dispenser, 60 Units			
16D01--25-07--BK	CN white | black	0.2	198
16D01--25-H6--BK	CN white | black	0.45, High Flow	198
16D03--25-H6--BK	CN gray | white**	0.45, High Flow	198
16D02--25-06--BK	CN green | dark green	0.45	198
16D03--25-05--BK	CN gray | white**	0.65	198
Microsart® @filter 100, Sterile Disposable Filter Units, 47 mm, 100 ml, Stacked and Packaged in Trays, Ideal for the Use with Microsart® Funnel Dispenser, 60 Units			
16D01--10-07--TG	CN white | black	0.2	110
16D01--10-H6--TG	CN white | black	0.45, High Flow	110
16D02--10-06--TG	CN green | dark green	0.45	110
16D03--10-H6--TG	CN gray | white**	0.45, High Flow	110
16D05--10-06--TG	RC white (w/o grid)	0.45	110

* CN = Cellulose Nitrate (Cellulose ester), RC = Regenerated Cellulose
** Gray membranes after wetting black

Accessories

Item	Description	US List Price ($)
16A08	Funnel dispenser for secure removal of single, sterile Microsart® @filter packaged in bags	560
16D03--10-H6-ACG	ADDFILTER 100,CN, BLACK-WHITE,0.45 M HF,	87
16D01--10-07-ACG	ADDFILTER 100,CN, WHITE-BLACK,0.2 M , SI	107
16D01--10-H6-ACG	ADDFILTER 100,CN, WHITE-BLACK,0.45 M HF,	87
16D03--25-H6-ACF	ADDFILTER 250,CN, BLACK-WHITE,0.45 M HF,	80
16D01--25-07-ACF	ADDFILTER 250,CN, WHITE-BLACK,0.2 M , SI	107
16D01--25-H6-ACF	ADDFILTER 250,CN, WHITE-BLACK,0.45 M HF,	80
16DMX	MICROSART ADDFILTER ADAPTOR ON MILLIFLEX	TBD

Microsart® @media

Advanced System for Agar and Membrane Transfer

Microsart® @media are media dishes pre-filled with different agar media types, sterile packaged and ready-to-use. Together with the Microsart® @ filter units, they introduce a brand new agar and membrane transfer concept for the Microbial Limit Test. The innovative active lid of Microsart® @media allows a touch-free membrane transfer from the Microsart® @filter base and thus reduces the risk of secondary contamination to an absolute minimum.

Features & Benefits

Innovative Membrane Transfer Concept
The active lid enables touch-free membrane transfer and, therefore, reduces the risk of secondary contamination. Thanks to its special design, no air bubbles are entrapped.

Easy Handling
Fits perfectly onto the Microsart® @filter base and thus allows an easy and reliable transfer of the membrane filter onto the agar. No powerful cracking of plastic is needed!

Safe & Reliable
Touch-free membrane transfer rules out manipulation and handling, minimizing major sources of secondary contamination. Results in best growth conditions and reliable results.

Time-saving
Innovative click-fit closure permits fast and easy removal of the funnel after filtration.

Applications

– Microsart® @media and the Microsart® @vance® product line enhance the safety of microbiological quality control in biopharmaceutical laboratories.

Specifications & Pricing

Model	Media Type	Target Microogranisms	Typical incubation time and Temperature	US List Price ($)
14313--47----ACN	TSA (Tryptic Soy Agar)	Total Count	48 to 72 hrs (USP) or 1 to 5 days (EP) at 30 to 35°	195
14314--47----ACN	SDA (Sabouraud Dextrose)	Yeasts and Molds	5 to 7 days at 20 to 25°	195
14322--47----ACN	R2A	Total Count	5 to 7 days at 20 to 28°	195

Accessories

Item	Description	US List Price ($)
166MP-4	Microsart® e.jet Transfer Pump	1,306
16848-CJ	Combi.jet manifold	1,800
1ZU---0002	Microsart® Base 47 mm	97
1ZAS--0007	Silicone Pressure Tubing, pressure sided, 1 meter lengths	21
17575----------ACK	Minisart SRP25 vent filters	tbd

Microsart® Combi.jet

2-Branch Stainless Steel Manifold for Microbiological Analysis

The Microsart® Combi.jet is a 2-branch manifold, made of high-grade stainless steel. The manifold has been specifically designed for the combined use with the Microsart® e.jet Transfer Pump. The system is able to create sufficient vacuum for vacuum filtration concomitantly transferring the filtered liquid directly to waste.

Features

– Ready-to-use units Microsart® @filter 100 and 250
– Ready-to-use units Microsart® Funnel 100 and 250
– Ready-to-use units Biosart® 100 Monitors
– Ready-to-use units Biosart® 250 Funnels
– Flammable units such as stainless steel funnels
– Autoclavable glass filter holders
– Autoclavable polycarbonate filter holder

Applications

– Microbial enumeration
– Particle testing in liquid products

Benefits

Compact Design
Reduces operating complexity due to its small and compact design. No need of suction flasks and water traps.

Quick Connection
Simply push-to-connect for assembling and pull-to-disassembling the whole system within seconds.

Sterile Venting
The stainless steel three-way valves (taps) allow the vacuum for each filter holder to be individually controlled and each filter station to be sterilely vented.

Maximum Flexibility
The Microsart® Combi.jet enables you to select the optimal hardware and consumables for your needs in microbiological analysis in quality assurance.

Ordering Information

Model	Description	US List Price ($)
16848-CJ	Microsart® Combi.jet 2-branch manifold, without frits	1,800
1ZU---0002	Microsart® Base 47 mm, with frit, stainless steel base for Combisart® and Microsart® Combi.jet Optimized for the use with 47 mm membranes, Click-Fit closure for Microsart® Funnel, Microsart® @filter and other funnel types sealed by bayonet closure	97

Accessories

Item	Description	Qty.	US List Price ($)
17575--------ACK	Minisart® SRP25, sterile filter for venting, 0.2 µm, individually sterile-packaged, could be autoclaved 5 times	50	155
17012----------E	Plug luer lock, to close the Minisart inlet, if sterile venting is not required	12	7
6980274	Silicone O-ring for Microsart® Base 47 mm male thread	3	tbd
6980235	Silicone O-ring for manifold female threads	3	13
1EAS--0022	Microsart® Combi.jet Coupling, Quick Connection, PVDF	1	62
1EAS--0027	Quick Connections for Microsart e.jet pump	1	23
1ZA---0006	Vacuum hose with Quick Con., silicone, 20cm	1	17
1ZAS--0016	Vacuum hose with Quick Con., silicone, 1m	1	23

Microsart® Combisart

Individual and Multi–Branch Systems

Combisart® system for microbiological analysis or particle count. The system features a modular design and field-proven standard accessories. At the heart of the Combisart® system is a stainless steel manifold, designed to accommodate all types of filter holders and funnels, such as ready-to-use funnels, flammable units, like stainless steel funnels for colony counting and autoclavable glass and polycarbonate filter holders.

Features

– **Safe & Reliable**
  – Sterile venting of each membrane after filtration
  – Sterilization acc. to ISO 8199
  – Special polished stainless steel surfaces allow easy cleaning & rinsing
  – Filtration of one, three or six samples in parallel
  – Easy pouring out of non-filterable samples
  - Equally easy for right- and left-handed users
– **Economical**
  – Maximum flexibility due to different set-ups
  – Space-saving in the autoclave
  – Stainless steel 304 – long lifecycle

Applications

– Microbiological analysis or particle count in quality assurance

Note: pre-assembled manifolds are supplied with traditional (16840) Base supports that are not compatible with Microsart @filters.

Specifications & Pricing

Model	Description	Capacity	US List Price ($)
Combisart® Individual System and Multi-Branch Manifolds, Made of High-Grade Stainless Steel, Pre-Assembled with Stainless Steel Funnels and lids			
16219-CS	Combisart® individual filter holder, stainless steel, 100 ml	1 + 100 ml	676
16201-CS	Combisart® individual filter holder, stainless steel, 500 ml	1 + 500 ml	725
16844-CS	Combisart® 1-branch stainless steel manifold, 100 ml	1 + 100 ml	939
16845-CS	Combisart® 1-branch stainless steel manifold, 500 ml	1 + 500 ml	976
16824-CS	Combisart® 3-branch stainless steel manifold, 100 ml	3 + 100 ml	2,345
16828-CS	Combisart® 3-branch stainless steel manifold, 500 ml	3 + 500 ml	2,441
16832-CS	Combisart® 6-branch stainless steel manifold, 100 ml	6 + 100 ml	3,976
16831-CS	Combisart® 6-branch stainless steel manifold, 500 ml	6 + 500 ml	4,304
Combisart® Individual and Multi-Branch Bases, Made of High-Grade Stainless Steel, without Funnels and lids, to Accommodate Various Funnel Types			
16841	Combisart® individual base, stainless steel, with frit (50 mm), to accommodate stainless steel funnels and Biosart® 100 | 250		387
16844	Combisart® 1-branch stainless steel manifold, without frit		467
16842	Combisart® 3-branch stainless steel manifold, without frits		1,169
16843	Combisart® 6-branch stainless steel manifold, without frits		1,760
16840	Traditional Sase Support		101
1ZU---0002	Microsart® Base 47 mm, with frit, stainless steel base for Combisart® and Microsart® Combi.jet Optimized for the use with 47 mm membranes, Click-Fit closure for Microsart® Funnel, Microsart® @filter and other funnel types sealed by bayonet closure		95

Accessories

Item	Description	Qty.	US List Price ($)
Accessories and Replacement Parts for the Combisart® System			
17575--------ACK	Minisart® SRP25, sterile filter for venting, 0.2 µm, individually sterile-packaged, could be autoclaved 5 times	50	155
17012----------E	Plug luer lock, to close the Minisart® inlet, if sterile venting is not required	12	7
6980274	Silicone O-ring for single base 16840 male thread (also 1ZU---0002)	3	tbd
1EAS-0026	Quick Connection Nipple, stainless steel	1	tbd
6980235	Silicone O-ring for manifold female threads	3	13
6980124	Silicone flat gasket underneath the frit (16840)	1	4
6980104	PTFE flat fasket underneath the frit (16840)	1	7
6980102	Stainless steel frit, 50 mm diameter (16840)	1	87
6980103	Stainless steel frit, 47mm diameter (16840)	1	87
6980272	Hose nipples, stainless steel, DN 10	1	67
1ZU---0001	Stainless steel frit for Microsart® Base 47 mm (1ZU---0002)	1	90
6980271	Combisart end-fitting O-Ring (16x2 mm, silicone)	1	tbd

Item	Description	Capacity	Membrane Filter Dia. (mm)	US List Price ($)
Funnels, lids, Seals and Filter Holders to Connect on the Combisart® System				
6981065	Stainless steel funnel with closure clamp	100ml	47 ⏐ 50	231
6981063	Lid, stainless steel	for 100 ml funnel		59
6981064	Lid seal, silicone	for 100 ml funnel		8
6981002	Stainless steel funnel with closure clamp	500 ml	47 ⏐ 50	253
6981001	Lid, stainless steel	for 500 ml funnel		65
6981003	Lid seal, silicone	for 500 ml funnel		15
6981004	Stainless steel funnel with closure clamp	40 ml	47 ⏐ 50	307
16511	Polycarbonate filter holder, complete with filter support and funnel	250 ml	47	91
16306	Glass filter holder, complete with filter support, funnel and metal clamp	30 ml	25	171
16307	Glass filter holder, complete with filter support, funnel and metal clamp	250 ml	47 ⏐ 50	295

Item	Description	US List Price ($)
Combisart® Adapter, to Accommodate Various Funnel Types		
16424	Biosart® 100 Adapter, onto 16840 (Combisart® single base) or onto 16841 (individual base)	14
16835	Biosart® 100 Monitors onto Combisart® manifolds 16844, 16842 and 16843	117
16836	16306 ⏐ 15 (glass funnel, 30 ml) onto Combisart® manifolds 16844, 16842 and 16843	117
16837	16307 (glass funnel, 250 ml) onto Combisart® manifolds 16844, 16842 and 16843	117

Microsart® mini.vac & maxi.vac

Vacuum Pump

The vacuum pump series are electric neoprene membrane pumps and therefore oil- and maintenance-free with a low noise level. The vacuum produced by the new pumps is controlled and can be easily adjusted to your specifications. Thus, damageable cells (e.g. bacteria) are concentrated on the surface of a membrane filter under better conditions, which results in decreased sub lethals, higher recovery rates and shorter incubation times.

Features

– Neoprene membrane pumps with low noise level
– Oil- and maintenance-free
– Reliable sources of vacuum

Applications

– Microbiological quality control of liquid products and particle testing

Pricing & Specifications

Model	Description	US List Price ($)
16694-1-60-22	Microsart® maxi.vac for multiple filtration runs, 115 V, 60	1,081
16694-1-60-06	Microsart® mini.vac up to 3 filter stations in parallel, 115 V, 60 Hz	509
Replacement Parts		
1ED---0055	Replacement kit for 16694-2-50-22 and -1-60-22, set of one membrane, two valve springs and two head seals	66
1ED---0054	Replacement kit for 16694-2-50-06 and -1-60-06, set of one membrane, two valve springs and two head seals	50
1EH---0002	Sound absorber for 16694-2-50-22 and -1-60-22	50
1EH---0001	Sound absorber for 16694-2-50-06 and -1-60-06	20
1EV---0002	Fine adjustment head for 16694-2-50-22 and -1-60-22	146
1EV---0001	Fine adjustment head for 16694-2-50-06 and -1-60-06	141
1EV---0003	Fine adjustment head for 16694-2-50-06 and -1-60-06,	141

Microsart® e.jet

Vacuum Pump

The Microsart® e.jet is a laboratory vacuum pump which creates vacuum and concomitantly transfers the filtered liquid to waste. The Microsart® e.jet is ideal for sample preparation in microbiological analysis achieving a trans membrane pressure of 600 mbar and a flow rate of 4.0 Nl/min (4.0 Normliters water displacement by air in one minute). Constant flow rates and a defined maximum vacuum guarantee a smooth and reliable filtration.

Features

- – Ideal for microbiology application
- – Maximum vacuum guarantee smooth and reliable filtration
- – Simply push-to-connect for assembling and pull-to-disassembling the whole system within seconds
- – Saves 70% of working space
- – Reduced operating complexity: No need of suction flasks and water traps
- – Smart design fits any laboratory environment
- – Safe operation | Maintenance-free

Applications

- – Microbiological quality control of liquid products and particle testing

Pricing & Specifications

Model	Description	US List Price ($)
166MP-4	Microsart® e.jet Transfer Pump with Quick Connection, without tubings, inlet and outlet hose nipples for DN 10 tubings	1,306

Accessories

Item	Description	US List Price ($)
1ZA---0006	Tubing with Quick Connection Coupling (PSU), silicone, 20 cm, for vacuum-sided connection, inner diameter DN 10, outer diameter DN 20, wall thickness 5 mm (when ordering, please state length required in meters)	26
1ZAS--0007	Silicone tubing, 1 m, for pressure-sided connection, inner diameter DN 10, outer diameter DN 14, wall thickness 2 mm	21
1ZE---0053	Foot switch for Microsart® e.jet Transfer Pump	342
Replacement Parts		
1EP---0003	Pump head complete for 166MP-4	300
1EE---0012	Power supply complete for 166MP-4	200
Threaded Fittings		
1EAS-0027	Quick Connection set, 2 Nipples (POM) on R3/8" male thread and 2 Couplings (PSU) on DN 10 hose nipple	24

Accessories

For Microbial Enumeration and Vacuum Filtration

Suction Flask
Vacuum-resistant flask made of Duran 50 glass with plastic safety hose nipple according to the – German Industrial Standard No. 12476. Outer diameter of the hose nipple, 9 mm. Inner diameter of the opening, 60 mm.

Model	Description	US List Price ($)
Suction Flasks		
16672-----1	Suction flask, 5 liters acc. to DIN 12476, incl. stopper 75 D and glass tube	215
16672	Suction flask, 2 liters acc. to DIN 12476, without stopper	161
17204	Tube connector for connecting a Combisart® stainless steel manifold to a suction flask 1 or 2 liters (not necessary when a Vacusart® is connected directly to the bored stopper)	6
16606	Suction flask, 1 liter (not available in countries which have safety restrictions on glass hose nipples)	52
Replacement Parts		
1EAQ--0017	Glass tube for silicon stopper 75 D for suction flask 5 liters 16672-----1	tbd
1EAS--0019	Bored stopper 75 D for suction flask 5 liters 16672-----1	80
1EA---0018	Assembling kit for hose barb for suction flask 5 liters 16672-----1	20
698300	Hose barb, complete, Polypropylene, for suction flask 2 liters 16672	170

Model	Description	Adaptation	US List Price ($)
Bored Stoppers for Suction Flask 2 liters 16672			
17173	Silicone stopper	Combisart® individual base 16841 or other individual stainless steel filter holders (16201, 16219, 16220) onto the suction flask 16672	28
17174	Silicone stopper	16306 ⎪15 (glass funnels, 30 ml) onto the suction flask 16672	28
17175	Silicone stopper	16307 (glass funnel, 250 ml) onto the suction flask 16672	28
Bored Stoppers for Suction Flask 1 liter 16606			
17004	Silicone stopper	Combisart® individual base 16841 or other individual stainless steel filter holders (16201, 16219, 16220) onto the suction flask 16606	7
17005	Silicone stopper	16306 ⎪15 (glass funnels, 30 ml) onto the suction flask 16606	43
17006	Silicone stopper	16307 ⎪16 (glass funnel, 250 ml) onto the suction flask 16606	42

Accessories

For Microbial Enumeration and Vacuum Filtration

Water Traps
Used between suction flask and vacuum source, in order to prevent overflow of filtrate into an electric vacuum pump.

Model	Description	US List Price ($)
17804-----------M	Vacusart® water trap, pack of 3	tbd

Woulff's Bottle, 500 ml
Used between suction flask and vacuum source. Allows simple control of the vacuum with glass units without a separate tap and prevents furthermore the filtrate from overflowing from the suction flask.

Model	Description	US List Price ($)
16610	Woulff's Bottle, 500 ml	126

Rubber Vacuum Hose (1 Meter)
Thick-walled rubber hose for connecting the system components, e. g. suction flasks, vacuum pumps, etc. When ordering, please state length required in meters.

Model	Description	US List Price ($)
16623	Rubber Vacuum Hose (1 meter)	13

Colony Counter
Compact, handy battery-operated colony counter, it is as simple to use as a ball-point pen, and has a 4-digit LCD-display. The counter is supplied with an additional marker refill.

Model	Description	US List Price ($)
17649	Colony counter	284
6981540	Replacement part; Black marker refill	6

Stainless Steel Tweezers
Sartorius stainless steel tweezers can be flamed and they are autoclavable. They have blunt-edged tips for a careful, firm hold of the membrane filter.

Model	Description	US List Price ($)
16625	Stainless steel tweezers	31

Sterisart® NF
Your Choice For Sterility Testing

International Pharmacopeia require the testing for sterility and certification of each batch of product prior to distribution for articles which need to be sterile. The Sterisart NF System is a unique and completely disposable technology based on the membrane filtration method, enabling the sterility testing of phamaceutical / medical products in full compliance with international Pharmacopeia.

Features

– Unique Septum Version
– Low adsorption
– High mechanical stability
– Sharp Metal needle
– Pre-installed color-coded tube clamps
– Product-/lot number identification
– Huge variety of adapters and more than 20 different unit types

Applications

– Sterility Testing of (bio)pharmaceutical products, medical devices and ophthalmica in ampoules, vials, bags, syringes, bottles, powders, etc.

Benefits

Unique Septum Version for aseptic sampling
Aseptic sample taking during incubation, for dilution, for rapid detection or for inactivation of antibiotics (penicillinase)

Sharp Metal needle
Convenient penetration of septum on Bottles, Bags, vials

Pre-installed color-coded tube clamps
Color coded clamps for easy and reliable assignment of the Sterisart NF container

Product-/lot number identification
Traceability of the product for documentation/security
Huge variety of adapters and more than 20 different unit types
Pre-Sterilized gamma or ethyleneoxide units double or single packed, for testing of ampoules, vials, bags, syringes, bottles, powders, etc. are available.

Microbiology | Sterisart

Model	Type of Sample	Type of Sample Container	Description	US List Price ($)
Sterisart NF – Sterility Test Systems, Gamma Sterilized, 10/box				
16466--------GBD	LVPs	Closed glass botles with septum	Long dual-needle metal spike, sterile vented	395
16467--------GBD	LVPs; SVP's	Open containers, i.e. glass ampoules, glass bottles, Collapsible bags	60 mm long needle and protective plate, inclusive sterile venting needle	395
16477--------GBD	LVPs, SVPs, Eye drops	Closed plastic containers / vials / ampoules, plastic containers of Blow-Fill-Seal fillings	Long needle, (side opening, with solid pointed tip, non-coring), protective plate, inclusive sterile venting needle	395
16475--------GBD	Lyophylisates, Soluble powders, Liquid antibiotics	Closed glass vials with septum	Two dual-needle metal spikes of different length, one is sterile-vented	404
16468--------GBD	Medical Devices	Tubing systems and bags with Luer Lock	Luer Lock connector, inclusive long needle and sterile venting needle	395
16478--------GBD	Medical devices	Containers / bags with Luer Lock male connectors	Female Luer Lock connector	395
16469--------GBD	Pre-filled syringes	Syringes with and without needles	Universal Luer adapter and long dual-needle spike, sterile venting needle	395
16476--------GBD	SVPs	Closed glass vials with septum	Short dual-needle metal spike, sterile-vented	395
Sterisart NF – Sterility Test Systems, Gamma Sterilized, Septum, 10/box				
16466--------GSD	LVPs	Closed glass bottles with septum	Sterisart NF aplha, dual-needle metal spike for closed containers	432
16467--------GSD	LVPs; SVPs	Open containers, i.e. glass ampoules, glass bottles, Collapsible bags	Sterisart NF alpha, 6-cm metal needle for open containers	432
16475--------GSD	Lyophylisates, Soluble powders, Liquid antibiotics	Closed glass vials with septum	Two dual-needle metal spikes of different length, one is sterile-vented	432
16469--------GSD	Pre-filld syringes	Syringes with and without needles	Universal Luer adapter and long dual-needle spike, sterile vented	432
16476--------GSD	SVPs	Closed glass vials with septum	Short dual-needle metal spike, sterile-vented	432
Sterisart NF – Accessories				
16470--------GBD	Sterisart NF gamma tubing systems with two dual-needle metal spikes of different length, needles made of flammable stainless steel; g-sterile; 10pk		Tubing system with two dual-needle metal spikes of different length, needles made of flamable SS	169
16471--------GBD	Transfer Kit for liquids			134
16596--------GBD	Minisart Air Syringe Filter - 0.2 μm PTFE membrane; MBS housing; Luer Slip outlet; Gamma sterile; Individually packed; Air/gas filtration; 50/pk			145
16596--------GBD	Minisart Air Syringe Filter - 0.2 μm Ptfe membrane; MBS housing; Venting Needle outlet; Gamma sterile; Double packaged for isolators; Air/gas filtration; 50/pk			160
1ZG---0014	Sterisart NF adapter for Millipore Equinox Pumps			25

Sterisart® Universal Pump

Ergonomic and User-friendly Pump for Sterility Test

The Sterisart Universal pump is especially designed for sample and media transfer into the Sterisart NF systems - suitable for use in cleanrooms and isolators. The surface of the Pump is made of high-grade stainless steel, therefore all necessary parts can be easily cleaned, disinfected or autoclaved. Two versions are available: basic version 16419 and an upgraded version 16420 with display, barcode scanner and user software.

Features

– Closed system – no ventilation
– Sophisticated & modular design
– Easy to clean
– Barcode Scanner
– Programmable
– Ergonomic Handling

Applications

– Liquid transfer during sterility test

Benefits

Closed system – no ventilation
Enhanced safety concerning particle release.

Sophisticated & modular design
Compact design, installation countersunk in isolators possible, 2 different versions available.

Easy to clean
With Peracetic acid, H2O2 and acetic acid (2.5%); Quaternary ammonium; Formaldehyde and glutaraldehyde; Isopropyl alcohol, Ethanol 70%.

Barcode Scanner
Enhanced traceability and documentation of the used media and products.

Ergonomic Handling
Adjustable display

Specifications & Pricing

Model	Description	US List Price ($)
16420	Sterisart Universal pump, upgraded version with display and user software	13.308
16419	Sterisart Universal pump, basic version	9,408

Accessories

Item	Description	US List Price ($)
1ZE---0033	Footswitch	165
1ZG---0014	Adapter for Sterisart® NF units, fitting into container for draining of Millipore Equinox pump	25
1ZE---0039	Transport trolley	260
1ZE---0040	Communication kit	
1ZE---0050	Installation kit for isolators	650
1ZG---0028	Container for draining	321
1ZA---0002	Drain Tubing	tbd
1ZGF--0020	Sterisart 10-fold holder	tbd

Microsart® RESEARCH Mycoplasma

Fast and easy monitoring of Mycoplasma contamination

Microsart® RESEARCH Mycoplasma enables a fast and reliable detection of Mycoplasma DNA in cell culture supernatants most applicable in research and development. Carefully selected primer │ probe combinations are highly specific for a region within the 16 S rRNA gene of at least 110 Mycoplasma species. The detection procedure can be performed within 3 hours. The use of TaqMan® probes adds specificity to the PCR detection system. 2 µl sample volume can be used as starting material. For the amplification a qPCR cycler is used and the evaluation can be performed with the standard cycler software.

Benefits

Microsart® RESEARCH Mycoplasma is based on Real-time PCR technology:
Easy-to-use and Fast: Results in hours not days!

Primers and probes detect a highly conserved region of the 16S rRNA gene of numerous Mycoplasma species
High specificity to detect all 9 Mycoplasma species according to EP & easy result interpretation

No specific hardware requirements
Easy implementation and no additional costs for hardware package

Applications

– Mycoplasma contamination control in research & development

Technical Specifications

Each kit contains reagents for 25 to 100 reactions. The expiry date of the unopened package is specified on the package label. The kit components are to be stored until use at +2 to 8°C and must be stored after opening and rehydration below -18°C. The lot specific Certificate of Analysis can be downloaded from the manufacturer's website (www.minerva-biolabs.com).

Kit Component	25 Reactons	100 Reactions
Model	SMB95-1005	SMB95-1006
Mycoplasma Mix	1 x lyophilized	4 x lyophilized
Rehydration Buffer	1 x 1.0 ml	2 x 1.0 ml
Positive Conrol	1 x lyophilized	1 x lyophilized
PCR grade Water	1 x 1.0 ml	4 x 1.0 ml

Notice to purchaser: Limited License
Purchase of this product includes an immunity from suit under patents specified in the product insert to use only the amount purchased solely in industrial microbiology QA/QC field and also for the purchaser's own internal research. No other patent rights are conveyed expressly, by implication, or by estoppel. Further information on purchasing licenses may be obtained by contacting:

Director of Licensing, Applied Biosystems,
850 Lincoln Centre Drive,
Foster City, California 94404, USA

Pricing & Specifications

Model	Description	Qty.	US List Price ($)
SMB95-1005	Microsart RESEARCH Mycoplasma	25	330
SMB95-1006	Microsart RESEARCH Mycoplasma	100	1,190

Accessories

Item	Description	Qty.	US List Price ($)
SMB95-2003	Microsart® AMP Extraktion	50 extractions	180

Microsart® AMP Mycoplasma

Fast and easy detection of Mycoplasma contamination

Reduce your testing time from weeks to 3 hours with the Microsart® AMP Mycoplasma. The kit utilizes quantitative, real-time PCR and is suitable for the sensitive but robust detection of Mycoplasma contamination in different raw materials in a biopharmaceutical process. With the ability to be very flexible in sample volume and sample preparation, the kit is specifically designed for the control of fermentation materials, for in-process control, and for lot release testing of finished products.

Pricing & Specifications

Model	Description	Qty.	US List Price ($)
SMB95-1001	Microsart® AMP Mycoplasma	25	695
SMB95-1002	Microsart® AMP Mycoplasma	100	2,530
SMB95-2021	Microsart Calibration Reagent Mycoplasma argininii	tbd	tbd
SMB95-2022	Microsart Calibration Reagent Mycoplasma orale	tbd	tbd
SMB95-2023	Microsart Calibration Reagent Mycoplasma gallisepticum	tbd	tbd
SMB95-2024	Microsart Calibration Reagent Mycoplasma pneumoniae	tbd	tbd
SMB95-2025	Microsart Calibration Reagent Mycoplasma synoviae	tbd	tbd
SMB95-2026	Microsart Calibration Reagent Mycoplasma fermentans	tbd	tbd
SMB95-2027	Microsart Calibration Reagent Mycoplasma hyorginis	tbd	tbd
SMB95-2028	Microsart Calibration Reagent Acholeplasma laidlawii	tbd	tbd
SMB95-2029	Microsart Calibration Reagent spiroplasma citri	tbd	tbd
SMB95-2011	Microsart AMP Validation Standard Mycoplasma argininii	tbd	tbd
SMB95-2012	Microsart AMP Validation Standard Mycoplasma orale	tbd	tbd
SMB95-2013	Microsart AMP Validation Standard Mycoplasma gallisepticum	tbd	tbd
SMB95-2014	Microsart AMP Validation Standard Mycoplasma pneumoniae	tbd	tbd
SMB95-2015	Microsart AMP Validation Standard Mycoplasma synoviae	tbd	tbd
SMB95-2016	Microsart AMP Validation Standard Mycoplasma fermentans	tbd	tbd
SMB95-2017	Microsart AMP Validation Standard Mycoplasma hyorginis	tbd	tbd
SMB95-2018	Microsart AMP Validation Standard Acholeplasma laidlawii	tbd	tbd
SMB95-2019	Microsart AMP Validation Standard spiroplasma citri	tbd	tbd

Kit Component	25 Reactions	100 Reactions
Model	SMB95-1001	SMB95-1002
Mycoplasma Mix	1 x lyophilized	4 x lyophilized
Rehydration Buffer	1 x 1.3 ml	4 x 1.3 ml
Positive Control	1 x lyophilized	1 x lyophilized
Internal Control	1 x lyophilized	4 x lyophilized
PCR grade Water	1 x 1.4 ml	4 x 1.4 ml

Accessories

Item	Description	Qty.	US List Price ($)
SMB95-2003	Microsart® AMP Extraktion	50 extractions	180
VS0641	Vivaspin 6, 100,000 MWCO	25	131
VS2041	Vivaspin 20, 100,000 MWCO	100	131
SMB95-2002	Microsart® AMP Coating Buffer	20 x 2 ml	131

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Director of Licensing, Applied Biosystems,
850 Lincoln Centre Drive,
Foster City, California 94404, USA

Air Monitoring

Equipment and Disposables for Air Monitoring

MD8 air samplers for the sampling of airborne microorganisms and viruses as well as background monitoring and impaction measurements. Choose between air scanners with gelatin membrane filters or portable air samplers that are capable to use both, the membrane filter method or the impaction method. Our air samplers ensure reliable and exact measurements and are suited for sterile areas of class A and B, isolators or blow-fill-seal machines.

Features

– Highest retention rates for viruses, spores and phages
– Fixed and portable sampling systems with built-in airflow compensation
– Ready to use filters, and culture media plates
– Highest recovery rates through soft filtration
– Solution available for laminar flow and Isolators
– Permanent air sampling method without loss of sensitivity

Applications

– Active Air Monitoring for airborne microorganisms and viruses

MD8 Airport

– Battery-powered and portable for universal use
– Battery power level clearly indicated so constant performance during sampling is guaranteed
– Ergonomic design and easy to clean
– Flexible adjustment possibilities of the volume flow and the sample volume
– User friendly prompting with the option of five languages: English, French, German, Italian and Spanish
– Parameters last used are stored even after automatic shut-off
– The device can be calibrated on-site

Specifications & Pricing

Model	Description	US List Price ($)
16757	AirPort MD8, complete with an adapter (17801 and battery charger (69898525)	3,255

*Each version can be switched from 50 to 60 Hz and back.

Accessories

Item	Description of Upgrade	US List Price ($)
16756	Calibration unit	6,060
17803	Adapter for BACTair™ on the AirPort MD8 air sampler	107
17085	Flexible PVC hose with reinforced ends (2 m)	84
17088	Flexible PVC hose with reinforced ends (5 m)	144
17662	Silicone tubing, sterilizable (1 m, state length required)	90
17657	Set of connectors (17658 and 17659), aluminum	183
17658	Connector (air sampler inlet to flexible hose), aluminum	98
17659	Connector (flexible hose to filter holder⏐ adapter), aluminum	94
17208	Case for MD8 airscan®	550
17656	Aluminum Stack for MD8 air samplers	1,870
17655	Individual filter holders for gelatine filter type 12602--80----ALK	235
17660	Middle part replacement	139
17661	End cap replacement	60
17016	Adapter (DN 25 hose barb to 1"–1 1/2" sanitary flange) to connect to isolator via silicone tubing and a filter capsule, stainless steel	135
17030	Adapter (DN 30 hose barb to 1"–1 1/2" sanitary flange) to connect to isolator via flexible PVC hose and filter capsule, stainless steel	122
17033	Clamp for 1"–1 1/2" sanitary flanges, stainless steel	110
17659---001	Connector (flexible hose to filter holder ⏐ adapter), hose nipple, stainless steel	527
17659---003	Connector (flexible hose to filter holder ⏐ adapter), tri clamp, stainless steel	541
17801---001	Adapter for gelatine filter disposables, stainless steel	288
5185307T9--SS--A	Sartofluor® MidiCap Capsule with PTFE membrane and sanitary flange inlet and outlet, for sterile air filtration inserted between the MD8 airscan® and isolator	tbd
BACTair™ Culture Plates		
1ZPX-D0002	Covers for BACTair™ Culture Media Plates, 10+ 2 units individually, sterile packaged	15
14301-110------K	BACTair™ Plates, sterile, without media, qty: 50	75
14320-110----ACD	Tryptic Soy Agar (TSA), 110 mm, single packed, qty: 10	25
14321-110----ACD	Sabouraud Agar, 110 mm , single packed, qty: 10	25
Disposable Gelatine Units, Sterile, Pack of 10		
17528--80----ACD	Individually packed in 1 polyethylene bag each	97
17528--80----BZD	Individually packed in 3 polyethylene bags each	107
17528--80----VPD	Individually packed in 3 polyethylene bags each, but label on innermost bag	110
Gelatine Disc Filter, Sterile, Sealed in Units of Five Each in a Polyethylene Bag		
12602--80----ALK	80 mm dia. Package Size: 50	249
12602--50----ALN	50 mm dia. Package Size: 100	350
12602--50----ALK	50 mm dia. Package Size: 50	230
12602--47----ALN	47 mm dia. Package Size: 100	362
12602--47----ALK	47 mm dia. Package Size: 50	230
12602--37----ALK	37 mm dia. Package Size: 50	160
Other **Consumables**		
12602-080 ALK	Gelatine disc filter, sterile, sealed in units of five each in a polyethylene bag	tbd
11404--80----ALN	Cellulose nitrate membrane filters, 0.8 µm, white with black grid, pre-sterilized in bags of 5	352
13004--80----ALN	Cellulose nitrate membrane filters, 0.8 µm, gray with white grid, pre-sterilized in bags of 5	343
11301--80----ALN	Cellulose nitrate membrane filters, 8 µm, white no grid, pre-sterilized in bags of 5g	352

Calibration Unit


Gelatine Membrane Filters

BACTair™ Culture Plates

Non-Sterile Membrane Filters

Cellulose Nitrate (Cellulose Mixed Ester) Membrane Filters, Gridded

If agar plates or absorbent pads to be wetted with liquid culture medium are used instead of Nutrient Pad Sets, Sartorius cellulose nitrate (cellulose ester) membrane filters are recommended. Naturally, the membrane filters must be free of microbes. For this purpose, they can be boiled or autoclaved. These membranes are offered in a choice of three different colors and provide a high-contrast background to colonies or particles.
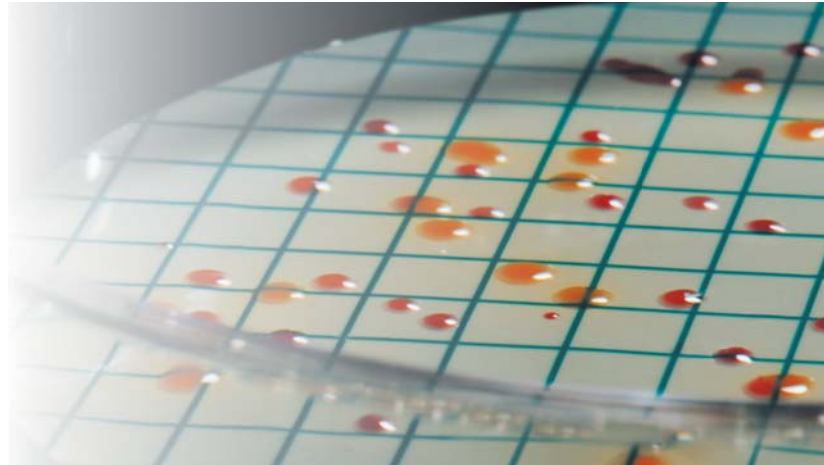
Features

– Outstanding recovery rates for microorganisms
– 0.45 μm are acc. to ISO 7704
– Three different colors available

Applications

– Microbial enumeration
– Particle testing
– Microscopy
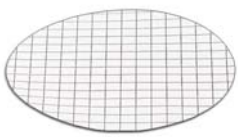
Specifications & Pricing

Model	Pore Size	Diameter	Pack Size	US List Price ($)
White Membrane with Black Grid, for Detection of Bacteria with Dyed Media, Particle Count & Microscopy, Type 114, Non–Sterile				
11407--25------N		25 mm	100	72
11407--47------N	0.2 µm	47 mm	100	101
11407--47------R		47 mm	1,000	707
11407--50------N		50 mm	100	103
11406--25------N		25 mm	100	72
11406--47------N		47mm	100	101
11406--47------R	0.45 µm	47 mm	1,000	707
11406--50------N		50 mm	100	103
11406--50------R		50 mm	1,000	711
11405--47------N	0.65 µm	47 mm	100	101
11404--25------N		25 mm	100	72
11404--47------N	0.8 µm	47 mm	100	101
11404--50------N		50 mm	100	103
11403--25------N		25 mm	100	72
11403--47------N	1.2 µm	47 mm	100	101
11403--50------N		50 mm	100	103
White Membrane with Green Grid, for Detection of Bacteria with Dyed Media, Particle Count & Microscopy, Type 139, Non–Sterile				
13906--47------N		47mm	100	104
13906--47------R	0.45 µm	47 mm	1,000	709
13906--50------N		50 mm	100	103
13906--50------R		50 mm	1,000	709
Green Membrane with Dark Green Grid, Providing Optimal Contrast to Light–Colored or Transparent Bacteria Colonies, Type 138, Non–Sterile				
13806--47------N		47mm	100	104
13806--47------R	0.45 µm	47 mm	1,000	709
13806--50------N		50 mm	100	103
13806--50------R		50 mm	1,000	709
Gray Membrane (After Wetting, Black) with White Grid, for Detection of Yeasts and Molds, Particle Count and Microscopy, Type 130, Non–Sterile				
13006--25------N		25 mm	100	75
13006--47------N	0.45 µm	47 mm	100	101
13006--47------R		47 mm	1,000	709
13006--50------N		50 mm	100	103
13005--47------N	0.65 µm	47 mm	100	101
13005--50------N		50 mm	100	103
13004--47------N	0.8 µm	47 mm	100	101
13004--50------N		47 mm	100	103

Experience – Complete Pipette Services

On-site field service, in-house pipette repair and calibration services

Sartorius Liquid Handling is pleased to offer complete pipette calibration and repair services. Whether you need basic calibration service, preventative maintenance, repair, ISO 8655 and ISO 17025 level certificates or reports, our factory-trained technicians provide the best service in the industry.

Basic Pipette Calibration Service

– For all makes and models of pipettes:
– All calibration equipment and certificates traceable through NIST

Calibration with Cleaning and Lubrication

For all makes and models of pipettes:
– Cleaning and lubrication of critical parts (tip cone(s), piston(s), seal(s) and O-rings). Replacement of critical parts if necessary
– Wide range of calibration levels to meet your Lab's needs
– All calibration equipment and certificates traceable through NIST

Pipette EXpress

Sartorius is pleased to offer mail-in pipette calibration service designed to provide high-quality pipette calibrations with simplified service options, transit boxes and forms combined with a 48-hour turnaround time at our state-of-the-art IS0 17025 Accredited Calibration Laboratory at our state-of-the-art ISO 17025 Accredited Service Laboratory.

Pipette Express follows all ISO 8655 and ISO 17025 guidelines for pipette calibrations
– Computer generated Calibration Certificates
– Three levels of service to meet your lab's calibration needs
– Secure transit cartons and packing material with each shipment
– Simplified service request and Decontamination Forms
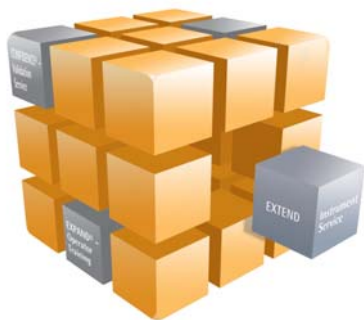
Contact:
Call: 1.800.635.2906
Email: pipette.service@sartorius.com

Pipette Preventative Maintenance Programs

Available for all Sartorius Liquid Handling brand pipettes

All pipettes are precision instruments, with mechanical and/or electronic components that are naturally subject to wear and possibly even damage over time, for example:
- The piston surface can deteriorate, wear, or corrode over time from friction and/or chemical attack
- Tipcones are subject to chemical corrosion and wear, especially in the tip sealing area
- Batteries within electronic pipettes have a normal lifespan of 1–2 years and must be replaced periodically

Pipette failure rates can be significantly reduced with the application of a regular Preventative Maintenance Program. Enhance the reliability of your pipette and the integrity of your data!

Sartorius Liquid Handling recommends Preventative Maintenance programs be applied once a year.

Ordering Information

Pipette Type	PM Program Includes:	US List Price ($)
1-channel mLINE	Tip cone, piston, calibration	72
8-channel mLINE	Tip cones, pistons, calibration	131
12-channel mLINE	Tip cones, pistons, calibration	152
1-channel eLINE	Tip cone, piston, battery, calibration	110
8-channel eLINE	Tip cones, pistons, battery, calibration	167
12-channel eLINE	Tip cones, pistons, battery, calibration	199

Sartorius Liquid Handling can provide Preventative Maintenance Programs to any Sartorius Liquid Handling pipette, including Proline Plus, Proline Electronic, ePET models, as well as non-biohit pipettes. Contact us for additional details.

Pricing subject to change without notice. May not be combined with any other special offers or promotions. Parts-only pricing without calibration can be quoted separately at a non-promotional level upon request.

Calibration combined with Preventative Maintenance Package

Preventative Maintenance Packages are designed for Biohit-Sartorius pipettes only. A typical Preventative Maintenance Package includes the replacement of the unit's critical parts (piston(s), tip cone(s), and battery on electronic models) and your choice of three service levels.
- Cleaning of the exterior and interior surfaces
- Replacement of the critical parts (tip cone, piston, and battery for electronic units)
- "After Service" evaluation performed (additional "As Found" performance checks available)
- A wide range of calibration levels to meet your Lab's needs
- Visual linearity check performed on all multi-channel units
- All calibration equipment and certificates traceable through NIST

Certificates and Reports

Detailed ISO 17025/NIST compliant service reports and calibration certificates are included with every pipette evaluation and or repair.

Pipette Repairs

Pipette repairs are performed at our service center. We simplify the repair process by providing affordable prices, based on the model type.

Our depot repair service features:
- Genuine factory parts
- Repairs are performed by a factory-trained technician
- Instrument will pass the same quality control guidelines required when the unit was new
- One year guarantee on parts and labor

Contact:
Call: 1.800.635.2906
Email: pipette.service@sartorius.com

arium® Maintenance and Service Contracts
On-site Maintenance and Calibration

Maximized longevity of your water system can be realized by scheduling our factory trained field service engineers for preventative maintenance visits.

Feature

Take advantage of the range of offers from our laboratory service team:
– Needs analysis
– Installation and startup
– Technical support
– Equipment qualification (IQ, OQ) and validation
– Preventive maintenance service and service contracts
– Corrective maintenance and spare part service

Water Systems
The exchanging of consumable items, such as cartridges, filters, and UV bulbs are key elements in reducing unforeseen downtime.

Extended Warranty

Description	Maintenance #	US List Price ($)
12 months arium advance RO	84WAB14	1,052
12 months arium advance EDI	84WAB17	1,052
12 months arium pro (basic)	84WAB19	574
12 months arium pro DI	84WAB63	574
12 months arium pro UF	84WAB64	574
12 months arium pro UV	84WAB65	574
12 months arium pro VF	84WAB66	574
12 months arium pro UV-TOC	84WAB67	574
12 months arium pro VF-TOC	84WAB68	574
12 months arium comfort I	84WAB80	1,202
12 months arium comfort II	84WAB81	1,202

Installation & Setup

Model	Maintenance #	US List Price ($)
PRO (basic)	84ICB19	840
PRO-DI	84ICB63	840
PRO-UF	84ICB64	840
PRO-UV	84ICB65	840
PRO-VF	84ICB66	840
PRO-UV-TOC	84ICB67	840
PRO-VF-TOC	84ICB68	840
61316RO	84ICB14	923
61215 EDI	84ICB17	923
Advanced RO-1	84ICB82	923
Advanced RO-3	84ICB83	923
Comfort I RO-2 + UV + TOC	84ICB80	1,113
Comfort II RO-2 + UV + TOC	84ICB81	1,113
Advance EDI RO-1 + EDI	84ICB84	1,113
Comfort I RO-1	84ICB86	1,113
Comfort I RO-1 + UV	84ICB87	1,113
Comfort I RO-1 + UV + TOC	84ICB88	1,113
Comfort I RO-2	84ICB89	1,113
Comfort I RO-2 + UV	84ICB90	1,113
Comfort II RO-2 + EDI	84ICB91	1,113
Comfort II RO-2 + EDI + UV	84ICB92	1,113
Comfort II RO-1 + EDI	84ICB93	1,113
Comfort II RO-1 + EDI + UV	84ICB94	1,113
Comfort II RO-1 + EDI + UV + TOC	84ICB95	1,113
Pro & Advance Combo	84IAB	1,302

Contact:
Call: 1.800.635.2906
Email: LPS.service.NA@sartorius.com

Advanced Preventative Maintenance Packages

Preventative Service and Consumable packages are bundled into a single price. Factory-trained field engineers ensure each system is maintained to deliver optimal performance. The engineer will exchange the consumables that were included with the package.

| Model	Maintenance No.	Pre-Treatment Cartridge	Comfort Pre-Treatment Cartridge	RO Module Cleaning Set	Replacement Bag	RO-Modules	RO-Module	EDI RO-Modules	EDI RO-Module	Softener Cartridge	612 Softener Cartridge	Elemental Kit	Biological Kit	Analytical Kit	Comfort Kit	Final Filter	UV Lamp	Ultrafilter	arium® Cleaning Kit	TOC Module
61316 RO System	84MAB14	✓		✓	✓											✓			✓	
61215 EDI System	84MAB17	✓		✓	✓					✓						✓			✓	
Advance RO-1	84MAB82	✓		✓	✓											✓				
Advance RO-2	84MAB14	✓		✓	✓	✓										✓				
Advance RO-3	84MAB83	✓		✓	✓	✓	✓									✓				
Advance EDI RO-1 + EDI	84MAB84	✓		✓	✓			✓	✓							✓				
Advance EDI RO-2 + EDI	84MAB17	✓		✓	✓			✓	✓							✓				
611DI	84MAB10											✓				✓			✓	
611UF	84MAB11												✓			✓		✓	✓	
611UV	84MAB12													✓		✓	✓		✓	
611VF	84MAB13													✓		✓	✓	✓	✓	
pro (Basic)	84MAB19											✓				✓				
pro DI	84MAB63											✓				✓			✓	
pro UF	84MAB64												✓			✓		✓	✓	
pro UV	84MAB65													✓		✓	✓		✓	
pro VF	84MAB66													✓		✓	✓	✓	✓	
pro UV-TOC	84MAB67													✓		✓	✓		✓	✓
pro VF-TOC	84MAB68													✓		✓	✓	✓	✓	✓
comfort I RO-1	84MAB86		✓	✓	✓										✓	✓				
comfort I RO-1 + UV	84MAB87		✓	✓	✓										✓	✓	✓			
comfort I RO-1 + UV + TOC	84MAB88		✓	✓	✓										✓	✓	✓			✓
comfort I RO-2	84MAB89		✓	✓		✓									✓	✓				
comfort I RO-2 + UV	84MAB90		✓	✓		✓									✓	✓	✓			
comfort I RO-2 + UV + TOC	84MAB80		✓	✓		✓									✓	✓	✓			✓
comfort II RO-1 + EDI	84MAB93		✓	✓	✓			✓	✓						✓	✓				
comfort II RO-1 + EDI + UV	84MAB94		✓	✓	✓			✓	✓						✓	✓	✓			
comfort II RO-1 + EDI + UV + TOC	84MAB95		✓	✓	✓			✓	✓						✓	✓	✓			✓
comfort II RO-2 + EDI	84MAB91		✓	✓		✓			✓						✓	✓	✓			
comfort II RO-2 + EDI + UV	84MAB92		✓	✓		✓			✓						✓	✓	✓			
comfort II RO-2 + EDI + UV + TOC	84MAB81		✓	✓		✓			✓						✓	✓	✓			✓
Part No.		613CPF05------V	H2O-CPF	H2O-CCS	H2O-CBS-20 / H2O-CBS-50	613CPM4------V	613CPM4	H2O-CRO-H-2	H2O-CRO-H-1	H2O-CSO	612CPS1-----A	H2O-E-Pack	H2O-B-Pack	H2O-A-Pack	H2O-C-Pack	5441307H4--CE--B	611CEL1	611CDU5	611CDS1	84MAB69

Note: ✓ Identifies that the final filter is only to be added when the tank is included

Lab Balance Installations, Maintenance, and Service Contracts
On-site Maintenance and Calibration

Our nationwide field service network makes it convenient and easy for installation and maintenance of all balances and moisture analyzers. Whether you need basic service, general installation, calibration, specific certificates or reports, count on our factory-trained engineers to give the best service experience in the industry.
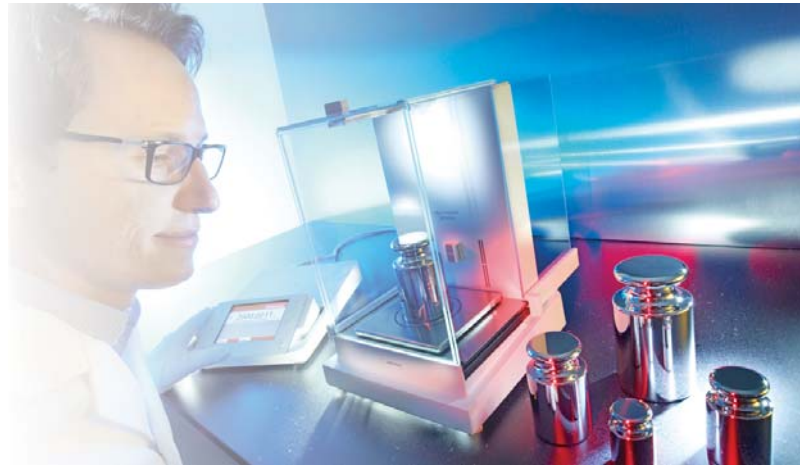
Preventative Maintenance Contract Includes	Standard Contract	Basic Maintenance	Maintenance
Service technician visit at scheduled intervals	✓	✓	✓
Check workplace-specific functioning of the equipment	✓	✓	✓
Check mechatronic|metrological specifications	✓	✓	✓
Inspect equipment, including mechanical and electrical subassemblies	✓	✓	
Test device configuration settings	✓	✓	
Cleaning, in accordance with equipment use	✓	✓	
Adjust equipment as needed	✓	✓	
Repair labor discount	✓		
Spare parts discount	✓		
ISO:IEC 17025 Calibration Certificate	✓	○	
Uncertainty report	○	○	
USP protocol	○	○	
Temperature record for moisture analyzers	○	○	

✓ = included   ○ = optional

Regular maintenance ensures continued proper functioning of your equipment and reliability of your measurement results while helping to prevent unscheduled downtime. Whether performed at fixed intervals in the scope of a service contract or as needed, our maintenance service gives you the reliability you need in your equipment.

| Installation Service		Item	US List Price ($)
Lab Balances	Electronic Precision Balance	84ICL01	212
	Electronic Analytical Balance	84ICL02	212
	Electronic Semimicro Balance	84ICL03	212
	Electronic Micro Balance	84ICL04	434
Moisture Analysis	Moisture Analyzer (MA units)	84ICL10	434
	Moisture Analyzer (MK 3 units)	84ICL11	575
	Microwave dryer (LMA200)	84ICL13	575
Certificates	17025 Calibration Certificate	84CENC	100
	USP Certificate	84CGNA	75
IQ|OQ	Laboratory Balance IQ/OQ Testing	84QAL	880

Contact:
Call: 1.800.635.2906
Email: LPS.service.NA@sartorius.com

Service

ISO:IEC 17025 Calibration Certificate and Uncertainty Report

Sartorius has been accredited by ACLASS to issue ISO:IEC 17025 calibration certificates for non-automatic electronic weighing instruments. The 17025 calibration certificate is an internationally recognized certificate that gives you and your auditors absolute certainty in assessing your results of measurement.

Your advantages:
• Traceability to a national standard and the prototype kilogram
• Precise indication of the uncertainty of measurement
• Reliability for your monitoring of inspection, measuring, and test equipment
• International Validity
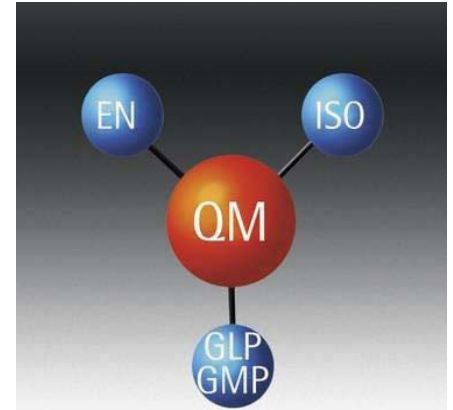
USP-certified minimum sample quantity
Our experienced service technicians test your balance to determine the operating range in accordance with USP guidelines and prepare a quantity certificate as described in the USP. A label is then affixed to the weighing instrument indicating the smallest permissible sample quantity in accordance with USP.

• Testing of your weighing instrument in accordance with the latest USP guidelines
• Determination of the minimum sample quantity as described in USP guidelines
• Certification of the minimum sample quantity as described in USP guidelines
• Affixing the label on your weighing instrument

Original Spare Parts Service

Constant availability of more than 4000 different original spare parts and consumables in our central warehouse guarantees fast repairs. Because spare parts are always required in a hurry, over 95% of all spare parts leave the warehouse within 24 hours of ordering. We would be happy to help you determine which parts you need.

Our services include:
– Constant availability of all the main spare parts
– Spare parts for all current product models up to at least 5 years past the last date of production
– Order by telephone or in our Web-based e-shop
– Availability and net price indicated when you order
– Short delivery times from our central warehouse

Instrument Repair

Instrument repairs are performed at our service center. We simplify the repair process by providing affordable flat rate prices, based on the model type.
Our depot repair service features:
– Genuine factory parts
– Repairs are performed by a factory-trained technician
– Instrument will pass the same quality control guidelines required when the unit was new
– 90-Day guarantee on parts and labor
– Turnaround is less than 10 business days for most models

Need a repair quote? Give us a call. 1.800.635.2906
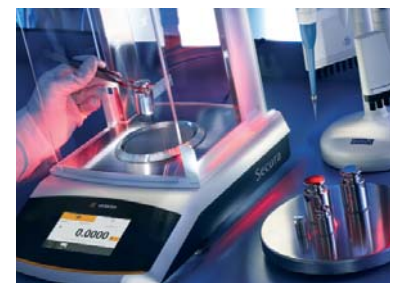
After Service Installation Option

We now offer, in local zones only, installation services for repairs performed in the NYSC. Customers can opt to have a Sartorius Service Engineer deliver and install their balance after repair. This service is provided where we have local representation.

Extended Warranties | 2015

Model	Description	US List Price ($)
84WAL01	12 months electronic precision balance	244
84WAL02	12 months electronic analytical balance	244
84WAL03	12 months electronic semimicro balance	244
84WAL04	12 months electronic micro balance	500
84WAL10	12 months IR moisture analyzer	500
84WAL13	12 months µw dryer	1,538
84WAB14	12 months arium advance RO	1,052
84WAB17	12 months arium advance EDI	1,052
84WAB19	12 months arium pro (basic)	574
84WAB63	12 months arium pro DI	574
84WAB64	12 months arium pro UF	574
84WAB65	12 months arium pro UV	574
84WAB66	12 months arium pro VF	574
84WAB67	12 months arium pro UV-TOC	574
84WAB68	12 months arium pro VF-TOC	574
84WAB80	12 months arium comfort I	1,202
84WAB81	12 months arium comfort II	1,202
84WAP01	12 months mechanical single channel pipette	89
84WAP02	12 months mechanical 8 channel pipette	161
84WAP03	12 months mechanical 8 channel pipette <=10µl	161
84WAP04	12 months electronic single channel pipette	136
84WAP05	12 months electronic 8 channel pipette	205
84WAP06	12 months electronic 8 channel pipette <=10µl	205
84WAP09	12 months Dispenser	187
84WAP10	12 months mechanical 12 channel pipette	187
84WAP11	12 months mechanical 12 channel pipette <=10µl	187
84WAP12	12 months electronic 12 channel pipette	245
84WAP13	12 months electronic 12 channel pipette <=10µl	245

Warranty Information

Item Description	Duration
Laboratory Balances (Cubis, Secura, Quintix, Practum, Entris, etc.)	2 years
Paint Mixing Scales & Terminals	2 years
Balance Accessories	1 years
Infrared Moisture Analyzers	2 years
Microwave Moisture Analyzers	1 years
Safety Powder Hoods	1 years
Pipettes	2 years
pH Meters	2 years
pH Electrodes	1 years
Laboratory Water Systems	2 years
Water System Accessories	1 years
Centrifuges & Accessories	1 years
MD8 Air Samplers	2 years
MD8 Air Sampler Accessories	1 years
e.motion Membrane Dispenser	2 years
Microsart Vacuum, e.Jet, & Pumps	2 years
Pump Accessories	1 years
Combisart & Combi.jet Manifolds	1 years
Combisart Accessories	1 years
Sterisart Universal Pumps	2 years
Sterisart Pump Accessories	1 years

For more information on warranty policies, please contact Sartorius, or reference the "Certificate of Warranty" document.

Sartorius Laboratory Seminars

Sartorius Laboratory Seminars and hands-on training are presented by our product specialists to enhance your knowledge as well as convey a new understanding of techniques and applications in the areas of: weighing, moisture analysis, lab water, liquid handling and ultrafiltration.

Seminar 1: Fundamentals of Weighing, Part 1: Basic Weighing Principles

This seminar discusses the basic principles of mass, weight force and gravity as well as the prerequisites needed for accurate measurements. In addition, the different balance types and classifications are also described.
Time: ~30 minutes

Seminar 2: Fundamentals of Weighing, Part 2: Influencing Factors in the Weighing Process

In this seminar, external factors that cause errors in the weighing process are discussed. These influencing factors caused by gravitational effects, balance leveling, electrostatic charges, magnetic effects, climate and ambient effects, such as: temperature fluctuations, humidity, air pressure as well as vibrations are also described. This seminar also details where to set up and how to operate a balance in order to minimize these effects to promote accurate weighing.
Time: ~1 hour

Seminar 3: Weighing in the Pharmaceutical Laboratory

In today's pharmaceutical labs, regulatory compliance must be maintained to ensure product quality and proper traceability. In this seminar, weighing regulations such as USP Chapter 41 and ISO 17025 are described.
Time: ~1 hour

Seminar 4: Thermogravimetric Moisture Analysis of Materials

Moisture analysis of materials using the thermogravimetric method can be tricky. Not only does the technology differ from the traditional oven drying method, but there are differences in heating technologies and sample preparation. These factors will be discussed to show how differences in technology and sample preparation can affect the final results. Hands-on demonstrations to show proper sample preparation and handling will be stressed.
Time: 3 Hours

Seminar 5: Laboratory Water Purification Technology and Laboratory Integration (AIA Registered Course)

This seminar is a practical guide to the various technologies and methodologies in laboratory water purification systems and their integration into laboratory engineering and planning. Curriculum is designed to educate attendees on current laboratory water standards and how they relate to the needs of the end user in regards to efficient space management, practical use, and system service. Intended for engineers, architects, facilities management, lab renovation services, or anyone planning a new laboratory. Course earns one AIA continuing education credit.
Time: 1 Hour

Seminar 6: Pipetting Academy™

In this seminar, you will gain a better understanding of the ergonomic risk in the laboratory environment with a focus on liquid handling. A video presented by Melissa Afterman, MS-HFE CPE, formerly of the Bureau Veritas, discusses the proper tool selection as well as the ergonomic risk in pipetting. You will also be given complimentary access for 30 days to our online Pipetting Academy support material which includes videos and presentations on proper pipetting techniques as well as the proper care of pipettes.
Time: ~1 hour

### Seminar 7: Ultrafiltration: Technology and Applications

Ultrafiltration is a fast and easy method for concentrating and buffer exchanging proteins and antibodies. This presentation highlights the technology behind Ultrafiltration as well as the most common applications for the technology.
Time: 1 hour

Seminar 8: Proteomic Filter Aided Sample Preparation

This seminar will discuss the method of Filter Aided Sample Preparation (FASP) which allows gel-free processing of biological samples solubilized with detergents for proteomic analysis by mass spectrometry. The advantages of using Sartorius Vivacon centrifugal concentrators for this application will also be highlighted.
Time: 1 hour
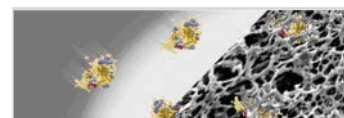
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