SARTORIUS

Product Datasheet

Arium® Comfort I

Space-saving Twin Technology

Advantages

- Time-saving – Use of innovative bag technology, eliminates costly tank cleaning
- Optimized water consumption – automatic with iJust
- Easy to use – Display with touch function and intuitive menu
- Quick – Favorites function with direct access for recurring volumes

Product Description

Sartorius offers the compact, environmentally friendly, reliable, and easy-to-use Arium® Comfort I for producing ASTM Type 1 ultrapure water and Type 3 pure water combined in a single system. The system contains state-of-the-art reverse osmosis technology and a unique cartridge specifically for the production of the highest ultrapure water quality. Compared to conventional water systems, the Arium® Comfort I optimizes water consumption using the integrated iJust control unit. This unique touch display with intuitive menu navigation ensures the utmost ease of use.

With the optionally integrated TOC monitor, its compact design, the flexible display and the SD card slot, the Arium® Comfort I is the ideal choice for demanding laboratory applications.

Innovative bag technology

The pure water is stored in the enclosed Arium® Bagtank system. This guarantees optimal storage of the pure water and protects against secondary contamination. Time-consuming tank cleaning intervals are eliminated thanks to the interchangeable Bag.

Display with touch function

Simply navigate intuitively in the easy-to-use and clear menu by lightly touching the display – even with gloves. Even the opening of the dispensing valve can be controlled by the unique touch display.

iJust

iJust stands for innovative technology that optimizes the product water quality and water consumption. The intelligent Arium® software controls a valve on the concentrate outlet in accordance with the measurement data for $CaCO_3$ and CO_2.

- Optimized, economical water consumption
- The highest product water quality at all times
- Guarantees a longer life of the downstream ultrapure water systems

"Favorites" function

With the new favorites function it is possible to save recurring volumes and retrieve them as required by direct access.

Technical Specifications

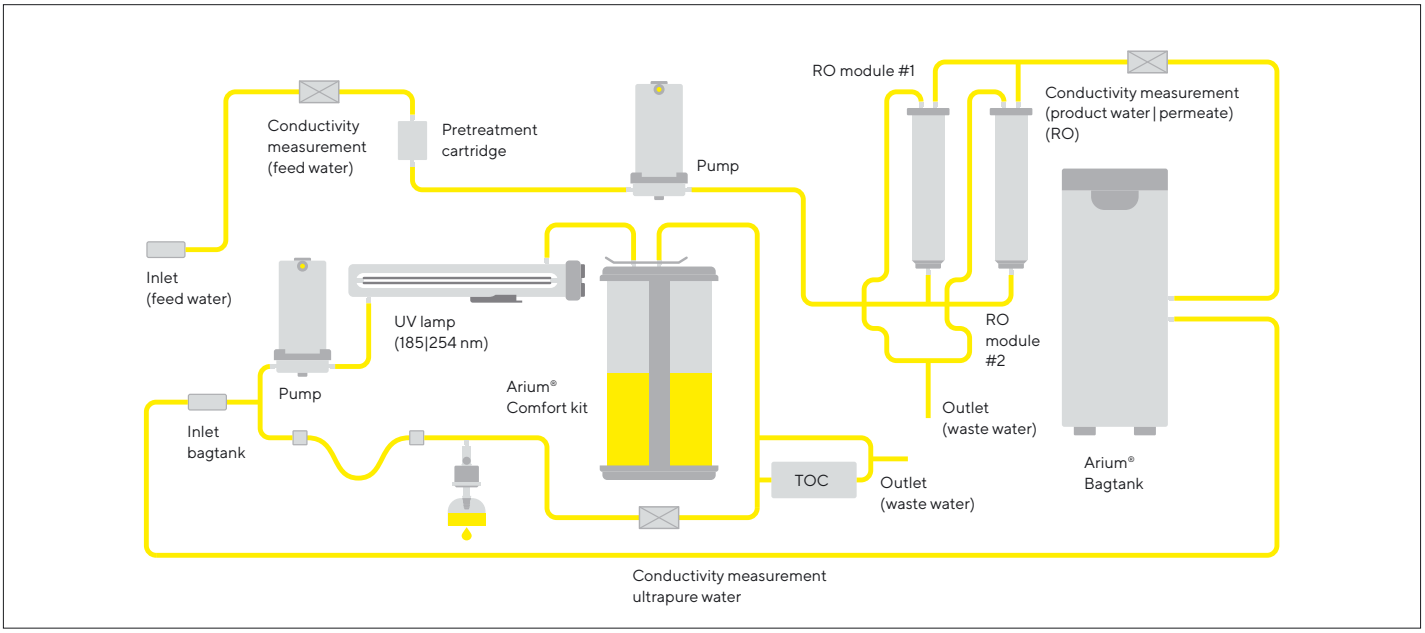
Dimensions: width × height × depth	43.5 × 50.1 × 47.6 cm
Empty weight	approx. 23 kg
Operating weight	approx. 31 kg
Power supply	100 – 240 VAC (± 10%); 50 – 60 Hz, 130 VA (max.)
Operating temperature	2 °C – 35 °C at max. 80 % relative humidity
Storage temperature	5 °C – 45 °C at max. 80 % relative humidity
Data output	SD card slot, RS-232 interface

Feed Water Quality

Exclusively potable tap water pursuant to the drinking water standards of the USA, the European Union, or Japan.

Input pressure[1]	0.5 – 6.9 bar, recommended > 2 bar
Temperature	2 – 30 °C
Specific conductivity	<1,500 µS/cm compensated to 25 °C
TOC	<2,000 ppb
Max. total hardness (max. $CaCO_3$)	360 ppm
Free chlorine	<4 ppm
Iron (total Fe content)	<0.1 ppm
Fouling Index (SDI)	<5
Turbidity	<1 NTU
pH value	4 – 10

[1] Dynamic pressure/flow pressure 100 L/h



Flowchart Arium® Comfort I (H2O-I-2-TOC-T)

Water Applications

Lab Water System Quality

Water Quality	Comfort I	Comfort I UV
Type 1 Ultrapure Water	▪	▪
Type 3 Reverse Osmosis Water	▪	▪

Lab Water System by Daily Water Consumption	Comfort I	Comfort I UV
Type 1 ultrapure water 10 – 40 Liter/day	▪	▪
Type 3 reverse osmosis water <140 Liter/day (8 L/h)	▪	▪
Type 3 reverse osmosis water <200 Liter/day (16 L/h)	▪	▪

Feed Application	Comfort I	Comfort I UV
Water for Laboratory devices (Autoclaves | Washing Machine etc.)	▪	▪

General Laboratory Application	Comfort I	Comfort I UV
Buffer, media and pH solutions	▪	▪
Histology	▪	▪
ELISA (Enzyme-Linked Immunosorbent Assay)	▪	▪
AAS (Atomic Absorption Spectroscopy)	▪	▪
Solutions for chemical analysis and synthesis	▪	▪
GF-AAS (Graphite Furnace Atomic Absorption Spectrometry)	▪	▪
Preparation of reagents	▪	▪
Photometry	▪	▪

Molocular Biology | Lifescience Application	Comfort I[1]	Comfort I UV
Electrophoresis	▪	
Northern Blot	▪	
Southern Blot	▪	
Western Blot	▪	
Endotoxin analysis	▪	
Immunocytochemistry	▪	
Production of monoclonal antibodies	▪	
PCR (Polymerase Chain Reaction)	▪	
DNA Sequenzing	▪	
Nutrient media for cell culture (Mammalia & plant)	▪	
Chromatography	▪	

Analytical Application	Comfort I	Comfort I UV
SPE (Solid phase extraction)		▪
Trace metal analysis		▪
IC (Ion chromatography)		▪
ICP-MS (Inductively Coupled Plasma Mass Spectrometry)		▪
GC-MS (Gas Chromatography – Mass Spectrometry)		▪
HPLC (High-Performance Liquid Chromatography)		▪
TOC analysis		▪

All displayed applicable systems starting with the minimal requested water quality criteria [1] Only when equipped with Cell Plus final filter

Product Water Quality

Water purification method	Adsorption by means of spherical activated carbon, catalyst, reverse osmosis, deionization, UV irradiation, optional end-position particle and sterile filtration	
Water type	ASTM Type 1 ultrapure water	Type 3 reverse osmosis water
Output[1]	120 L/h	8 or 16 L/h
Water dispensing flow rate[2]	Up to 2 L/min	Up to 3 L/min[3]
Volume-controlled dispensing[3]	2 L/min in 100 mL, 1 L or 5 L steps, depending on the total amount removed between 0.1 L and 60 L	–
Volume accuracy[2]	3 % between 0.25 L and 60 L	–
Typical conductivity[2]	–	< 20 µS/cm
Typical resistivity[2]	–	< 0.05 MΩ × cm
Conductivity[4]	0.055 µS/cm compensated to 25 °C	–
Resistivity[4]	18.2 MΩ × cm compensated to 25 °C	–
TOC content[6] (system with UV lamp)	≤ 2 ppb	–
TOC content[6] (system without UV lamp)	< 5 ppb	–
Bacteria[7]	< 0.01 CFU/mL	< 0.01 CFU/mL
Particle content[7]	No particles > 0.22 µm	No particles > 0.22 µm
Endotoxins[8]	< 0.001 EU/mL	–
RNase concentration[8]	< 1 pg/mL	–
DNase concentration[8]	< 5 pg/mL	–
Typical ion retention	–	up to 98 %
Retention of dissolved organic substances (MW > 300 Dalton)[9]	–	> 99 %
Particle and microorganism retention	–	> 99 %

[1] Depending on the feed water pressure, temperature, and condition of the RO modules
[2] Depending on feed water and constant operating conditions
[3] When using an Arium® Bagtank with pump, depending on hydrostatic pressure, connected accessories or end filter
[4] Measured value output adjustable to 25 °C, compensated or uncompensated
[5] Constant of the ultrapure water measurement cell: 0.01 cm^{-1}
[6] Determined with municipal water (Goettingen), TOC < 1,000 ppb
[7] When using an Arium® Sterile Plus (Sartopore® 2 150)
[8] When using an Arium Cell Plus
[9] Depends on the type of organic contamination in the feed water

Ordering Information

Arium® Comfort I systems for the production of ASTM Type 1 ultrapure water and Type 3 reverse osmosis water

Scope of supply: 1 Arium® Comfort I, Water Guard, RO (reverse osmosis) module(s) and connection kit, optionally with UV lamp and TOC monitor

Order number without UV lamp without TOC monitor	Order number incl. UV lamp	Order number incl. UV lamp incl. TOC monitor	Description
H2O-I-1-T	H2O-I-1-UV-T	H2O-I-1-TOC-T	Arium® Comfort I bench-top device, flow capacity Type 3 pure water 8 L/h
H2O-I-1-B	H2O-I-1-UV-B	H2O-I-1-TOC-B	Arium® Comfort I wall-mounted device, flow capacity Type 3 pure water 8 L/h
H2O-I-2-T	H2O-I-2-UV-T	H2O-I-2-TOC-T	Arium® Comfort I bench-top device, flow capacity Type 3 pure water 16 L/h
H2O-I-2-B	H2O-I-2-UV-B	H2O-I-2-TOC-B	Arium® Comfort I wall-mounted device, flow capacity Type 3 pure water 16 L/h

For under-bench installation of the Comfort I devices please order a comparable bench-top device, as well as the conversion kit described under the accessories (H2O-ACK-D).

Accessories

Arium® Bagtanks

The most innovative tank system

- Integrated ventilation filter with non-return valve provides reliable protection against CO_2 pollution
- High flexibility through the 4 rollers available as an option
- Easy and fast exchange of the Arium® Bags
- High user safety due to the avoidance of cleaning chemicals

Description

The pure water is stored in the innovative enclosed Arium® Bagtank system. This system protects the prepared pure water against secondary contamination. The Sartorius Bagtank system enables consistent water quality over a prolonged period, thereby ensuring permanent, reproducible results. Unlike conventional water reservoirs, the Arium® Bag offers a high level of user safety and time savings, as there is no need for a complicated cleaning procedure with chemicals.

Arium® Bagtanks are housings which are equipped with Arium® Bags. The Arium® Bagtanks are available in 20 L, 50 L, and 100 L volumes. Their design is adaptable and saves space in any laboratory environment, and the optional rollers make this an extremely flexible system.

Integrated distributor pumps are a standard component of the 50 L and 100 L Bagtanks. A distributor pump is also available as an option for the 20 L Bagtank. In addition, a wall holder for the space-saving and user-friendly installation of this tank is also available.

Water dispensing flow rate	
With pump[1]	up to 3.0 L/min
With pump, remote dispenser and Sterile Plus filter[1]	up to 2.0 L/min
Without pump[2]	up to 1.5 L/min
Pump pressure	3 bar

Intended Use

Device type:

- Arium® Comfort I

Technical Specifications | Ordering Information

Materials	
Bagtank	Stainless steel	plastic
Bag	S71 film
Tubing	PE	silicone

Dimensions, excluding rollers and wall bracket [H × W × D]	
Bagtank 20	80.8 × 16.6 × 43.7 cm
Bagtank 50	85.2 × 25.4 × 58.7 cm
Bagtank 100	85.2 × 51.4 × 58.7 cm
Bag 20 L	86.5 × 43.0 cm
Bag 50 L	90.0 × 58.1 cm

Empty weight without Arium® Bag | Operating weight with filled Arium® Bag	
Bagtank 20	19 kg	40 kg
Bagtank 50	33 kg	84 kg
Bagtank 100	47 kg	148 kg

Number of bags per tank	
Bagtank 20	1 × 20 L
Bagtank 50	1 × 50 L
Bagtank 100	2 × 50 L
Power supply[1]	240 VAC (± 10 %), 50 Hz, 120 VA (max.)[2]
Power supply US versions[1]	115 VAC (± 10 %), 60 Hz, 170 VA (max.)[1]
Operating temperature	2 °C – 35 °C at max. 80 % relative humidity
Storage temperature	5 °C – 45 °C at max. 80 % relative humidity

Water connection input	
	1 × ⅜" PLC quick-connect coupling

Water connection output	
Bagtank 20	1 × ⅜" PLC quick-connect coupling
Bagtank 50, Bagtank 100	2 × ⅜" PLC quick-connect coupling

[1] Bagtank 20 is supplied without a pump as standard, pump optionally available
[2] Value only applies to Bagtank 20, dispensing site at the same height or lower than the tank outlet
[3] Note: The Arium® Bag is not included in the scope of delivery of the Arium® Bagtank

Order number	Description
H2O-AOV-20[3]	Arium® Bagtank 20 L, without pump, 1 pc
H2O-AOV-50[3]	Arium® Bagtank 50 L, with pump 240 VAC, 50 Hz, 1 pc
H2O-AOV-50-US[3]	Arium® Bagtank 50 L, with pump 115 VAC, 60 Hz, 1 pc
H2O-AOV-50-W[3]	Arium® Bagtank 50 L, without pump, 1 pc
H2O-AOV-100[3]	Arium® Bagtank 100 L, with pump 240 VAC, 50 Hz, 1 pc
H2O-AOV-100-US[3]	Arium® Bagtank 100 L, with pump 115 VAC, 60 Hz, 1 pc
H2O-AOV-100-W[3]	Arium® Bagtank 100 L, without pump, 1 pc
H2O-ADP-20	Pump Arium® Bagtank 20 L, 240 VAC, 50 Hz, 1 pc
H2O-ADP-20-US	Pump Arium® Bagtank 20 L, 115 VAC, 60 Hz, 1 pc
H2O-ATR	Rollers for Arium® Bagtank 50 & bagtank 100, including fastening material, 4 pcs
H2O-CBS-20	Arium® 20 L Bag for Arium® 20 L Bagtank, 2 pcs
H2O-CBS-50	Arium® 50 L Bag for Arium® 50 L and 100 L Bagtank, 2 pcs
H2O-ATB	Wall mount for Arium® Bagtank 20, 1 pc

Arium® Conversion Kit

Flexibly placeable, simple and space-saving integration

- Optimal integration into your laboratory furniture
- Space-saving arrangement of the system through variable wall installation of the display | dispenser unit
- Full operation directly on the display | dispenser unit

Description

In conjunction with an Arium® bench-top system, the Arium® Conversion Kit also enables the installation of the device as a built-in version.

By extending the tube routing as well as the display | dispenser unit, the system can be ideally integrated into your laboratory furniture.

This version creates more space on and above the laboratory bench, as the control unit with display and water dispenser can be mounted on the wall in various ways.

Technical Specifications | Ordering Information

Materials	
Tubing	PVDF
Tube length	3.4 m
Cable length	3.0 m

Order number	Description
H2O-ACK-D	Arium® Conversion Kit, including wall mounting kit for the display	dispenser unit*

* The Arium® Conversion Kit can only be used in conjunction with an Arium® bench-top device. Conversion of the system should only be carried out by Sartorius Service specialists.

Intended Use

Device type:

- Arium® Comfort I

Arium® Remote Dispenser

Ergonomic water dispensing with a working radius of up to 3.7 m

- Extended operating range of 3.7 m
- Available with height-adjustable stand or wall mounting bracket
- Ergonomic design
- Easy-to-use
- Connection for Sterile Plus or Cell Plus filter

Description

The Arium® Remote Dispenser is an ergonomically designed, easy-to-handle dosing unit which is ideally suited to the withdrawal of pure water.

Depending on the working environment, you can save space by mounting the remote dispenser on the wall or on a stand that is height-adjustable up to 70 cm. The stand enables relaxed working with optimal adaptation to the different sizes of the extraction vessels. The extended tube routing provides an operating range of 2.5 m from the Arium® device and a further 1.2 m from the stand.

Depending on the requirements, the remote dispenser can also be used with a Sterile Plus or Cell Plus filter.

Technical Specifications | Ordering Information

Materials	
Stand	Aluminum (gray anodized)
Remote Dispenser	Plastic, white finish
Tubing	PVDF

Dimensions without tubing [W × H × D]	
Remote Dispenser with stand	18.5 × 59.5 × 51.0 cm
Remote Dispenser with wall bracket	9.0 × 10.0 × 28.5 cm

Weight without tubing	
Remote Dispenser with stand	5.60 kg
Remote Dispenser with wall bracket	0.46 kg

Order number	Description
H2Opro-AMDG1	Arium® Remote Dispenser including height-adjustable stand, 1 pc
H2Opro-AMDG2	Arium® Remote Dispenser including wall mounting kit, 1 pc

Intended Use

Device type:

- Arium® Comfort I

Arium® Bagtank Remote Dispenser

Ergonomic water dispensing from the Arium® with a working radius of up to 3.7 m

- Extended operating range of 3.7 m
- Available with height-adjustable stand or wall mounting bracket
- Ergonomic design
- Easy-to-use
- Connection for Sterile Plus or Cell Plus filter

Description

The Arium® Bagtank Remote Dispenser is an ergonomically designed, easy-to-handle dosing unit which is ideally suited to the dispensing of pure water.

Depending on the working environment, you can save space by mounting the remote dispenser on the wall or on a stand that is height-adjustable up to 70 cm. The stand enables relaxed working with optimal adaptation to the different sizes of the extraction vessels. The extended tube routing provides an operating range of 2.5 m from the Arium® Bagtank and a further 1.2 m from the stand.

Depending on the requirements, the remote dispenser can also be used with a Sterile Plus or Cell Plus filter.

Technical Specifications | Ordering Information

Materials	
Stand	Aluminum (gray anodized)
Remote Dispenser	Plastic, white finish
Tubing	PE

Dimensions without tubing [W × H × D]	
Remote Dispenser with stand	18.5 × 59.5 × 51.0 cm
Remote Dispenser with wall mounting bracket	9.0 × 10.0 × 28.5 cm

Weight without tubing	
Remote Dispenser with stand	5.60 kg
Remote Dispenser with wall mounting bracket	0.46 kg

Order number	Description
613-AMDG1	Arium® Remote Dispenser including height-adjustable stand for connection to Arium® Bagtanks, 1 pc
613-AMDG2	Arium® Remote Dispenser including wall mounting kit for connection to Arium® Bagtanks, 1 pc

Intended Use

- Arium® Bagtank 20*
- Arium® Bagtank 50
- Arium® Bagtank 100

* only in conjunction with an optional distributor pump

Arium® Display Mounting Kit

All menu functions directly at the water-dispensing site

- Visual quality control directly at the water-dispensing site
- System control directly at the workplace
- Optimum adjustment to various vessel sizes
- Water dispensing using the slider
- Reach up to 2.5 meters
- Connection for Sterile Plus or Cell Plus filter

Description

The Display Mounting Kit not only expands the working radius of up to 2.5 meters from the Arium® ultrapure water system, but also allows control of the device and monitoring of the ultrapure water quality directly at the dispensing site. Integrated into the stand is the bracket to which the flexible Arium® display is mounted. The result is a combination of full access to the menu with its functions and the practical convenience of a remote dispenser.

The stand, the height of which can be adjusted over 70 cm, enables relaxed working with only one hand with optimal adaptation to the different sizes of the extraction vessels.

Depending on the requirements, the remote dispenser can also be used with a Sterile Plus or Cell Plus filter.

Technical Specifications | Ordering Information

Stand Material	Aluminum (gray anodized)
Dimensions [W × H × D]	22.0 × 59.5 × 25.5 cm
Weight	5.60 kg

Order number	Description
H2Opro-ADM1	Arium® Display Mounting Kit, height-adjustable, for connection to Arium® under-bench systems, 1 pc

* The Arium® Display Mounting Kit can only be used in conjunction with an Arium® Conversion Kit. Conversion of the system should only be carried out by Sartorius Service specialists.

Intended Use

Device type:

- Arium® Comfort I

Arium® Multifunctional Stand

Full menu function with maximum flexibility
- Visual quality control directly at the water-dispensing site
- System control directly at the workplace
- Optimum adjustment to various vessel sizes
- Flexible water dispensing as required
- Reach up to 2.5 meters
- Connection for Sterile Plus or Cell Plus filter

Description

The multifunctional stand combines the convenience of the display mounting stand with the flexibility of the remote dispenser. Combined into one unit, the multifunctional stand allows the withdrawal of ultrapure water as required with variable dosing.

The dosing can be performed by volume-controlled withdrawal or even time-controlled or manual withdrawal. Depending on the application, the dosing unit – either stationary or flexible – therefore offers the user an ideal dispensing option. Monitoring of the ultrapure water quality and control of the device is performed directly at the extraction point.

Due to the ability to adjust the height of the stand by up to 70 cm and the elongated tube routing of 2.5 m, the working radius can be ideally adjusted to meet the user's requirements, thereby enabling relaxed working. .

Depending on the requirements, the remote dispenser can also be used with a Sterile Plus or Cell Plus filter.

Technical Specifications | Ordering Information

Stand Material	Aluminum (gray anodized)
Dimensions [W × H × D]	22.0 × 59.5 × 25.5 cm
Weight	5.60 kg

Order number	Description
H2O-ADD	Arium® Multifunctional Stand for connection to Arium® under-bench systems, 1 pc

* The Arium® Multifunctional Stand can only be used in conjunction with an Arium® Conversion Kit. Conversion of the system should only be carried out by Sartorius Service specialists.

Intended Use

Device type:
- Arium® Comfort I

Arium® Foot Switch

Greater convenience during ultrapure water dispensing

- Water dispensing at a press of the foot
- Facilitates work in the clean room and minimizes the risk of contamination
- Low installation height enables Comfortable, fatigue-free switching

Description

Easy-to-connect foot switch to start and stop the water extraction process. The sturdy foot switch enables work to be performed with both hands, e.g. for switching vessels, and minimizes the risk of contamination in the clean room.

Technical Specifications | Ordering Information

Material	Nylon, glass fiber-reinforced
Dimensions [W × H × D]	14.0 × 4.5 (max.) × 10.6 cm
Cable length	2 m
Power supply	100 – 240 VAC	50 – 60 Hz
Connection	Phoenix plug, 2-pin

Order number	Description
H2O-AFS1	Arium® Foot Switch, 1 pc

Intended Use

Device type:

- Arium® Comfort I

Arium® Printer

GMP data documentation made easy

- Acquisition and documentation of current measurement data
- High printing speed
- Compact and robust design
- Thermal transfer printing process (for durable prints in regulated areas)
- Direct thermal printing method possible (for less stringent requirements in standard use)

Description

To assist with qualification and documentation tasks, current measured values are output via an RS-232 interface to the printer.

Technical Specifications | Ordering Information

Dimensions [W × H × D]	241.3 × 139.9 × 177.4 mm
Interface	RS-232 (max 115,200 bps) – USB 2.0 (full speed)
Power supply	External universal switching power supply ▪ Input: 100 – 240 V~ ▪ Output: 24 V–; 2.5 A

Order number	Description
YDP30	Printer, 1 pc
SB-12-01-0250	Connection cable Arium® (required), 1 pc
69Y03285	Set of standard paper and ink ribbon for thermal transfer printing (GMP-compliant)
69Y03287	Standard paper for direct thermal printing

Intended Use

Device type:

- Arium® Comfort I

Arium® Water Guard

Early detection of leakages protects the laboratory
- Highly sensitive optical sensor
- Audiovisual alarm signals
- Automatic water stop in the case of leakage
- High-quality material, no corrosion
- Easy to install
- Integrated wall mounting bracket for solenoid valve

Description

Only the early detection of water leakages provides optimal protection against water damage in the laboratory. Leakages are registered by the highly sensitive optical sensor.

In contrast to conventional sensors, this sensor functions independently of conductivity measurement values as these are so low in the ultrapure water area that the activation of the guard is not guaranteed. Once a leak is detected, the water guard automatically locks the feed water inlet line. An acoustic warning is triggered immediately and the system status can be constantly controlled using the integrated LED display. With its sensitive optical sensors and high-quality materials, the Arium® Water Guard is perfect for all ultrapure and pure water systems.

Technical Specifications | Ordering Information

Sensor dimensions	
Diameter	5 cm
Height	2.5 cm
Cable length	2 m

Tubing connections	
Input	⅜" Plug-in connector
Output	⅜" Plug-in connector
Power supply	100 – 240 VAC	50 – 60 Hz

Order number	Description
610AWG1	Arium® Water Guard, 1 pc

Intended Use

Device type:
- Arium® Comfort I

Consumables

Arium® Sterile Plus

Sterile and particle-free water dispensing

- Excellent service life and flow rates
- Integrity tested
- Validated according to HIMA and ASTM F-838-05
- Meets WFI quality standards pursuant to USP incl. USP plastic class VI test
- Production in accordance with DIN ISO 9001
- Easy to install
- Automatic venting
- Certified quality

Description

The Arium® Sterile Plus (Sartopore® 2 150) is a sterile, ready-to-use membrane filter capsule suitable for the most stringent requirements. Arium® Sterile Plus membrane filter capsules contain a hydrophilic, heterogeneous polyethersulfone double membrane. It enables an excellent service life and flow rates. The capsule is attached in the end position by means of a quick connector and reliably removes all particles and microorganisms in the last water purification step. A hydrophobic PTFE membrane at the farthest point "upstream" allows for easy and clean ventilation of the capsule.

All pleated Arium® Sterile Plus membrane filter units are validated as sterile filters for biopharmaceutical application according to the HIMA and ASTM F-838-05 guidelines (documentation available). During the manufacturing process, every capsule is integrity-tested to meet the highest quality standards and safety regulations.

Technical Specifications | Ordering Information

Materials	
Membranes	Asym. Polyethersulfone
Bell assembly	Polycarbonate
Other plastics	Polypropylene
Pore size	0.45 µm × 0.22 µm
Filtration area	0.015 m²
Input and Output	¼" Plug-in connector
Sterilization (max. 3 cycles)	Autoclaving at 134 °C, 1 bar, 30 min.
Max. diffusion	1 mL/min @ 2.5 bar
Min. bubble point	3.2 bar

Order number	Description
5441307H4--CE	Arium® Sterile Plus (Sartopore® 2 150 Capsule), 0.22 µm pore size, 1 pc

Intended Use

Device type:

- Arium® Comfort I
- Arium® Bagtank Remote Dispenser
- Arium® Remote Dispenser

Arium® Cell Plus Ultrafilter

For effective removal of endotoxins in cell culture applications

- Effective removal of RNase | DNase
- Reliable removal of endotoxins
- High flow rate performance
- Certified quality
- Sterile-packaged

Description

The Arium® Cell Plus is a point-of-use ultrafilter for efficient removal of endotoxins, RNase, DNase, microorganisms and particles.

Designed for Arium® Comfort water systems, this sterile-packaged ultrafilter provides the highest safety for your critical cell culture applications. A protective bell supplied with the ultrafilter additionally prevents retrograde contamination.

Moreover, the high-grade material selected for Arium® Cell Plus enables excellent total throughputs and optimal flow rates.

Technical Specifications | Ordering Information

Materials	
Membrane	Polysulfone
Composite material	Polyurethane (PUR)
Housing	Acrylonitrile butadiene styrene (ABS)
Protective bell	Polycarbonate (PC)

General Specifications	
Dimensions (height × diameter)	169 × 50 mm
Max. operating pressure	6 bar (87 psi)
Max. inlet temperature	50 °C
Effective membrane area	0.5 m^2

Typical Specifications	
Flow rate (depends on the inlet pressure and type of system)	Up to 2.0 L/min
Endotoxins	< 0.001 EU/mL
Bacteria	< 1 cfu/100 mL
RNase concentration	< 1 pg/mL
DNase concentration	< 5 pg/mL

Order number	Description
H2O-CUF	Arium® Cell Plus Ultrafilter, 1 pc

Intended Use

Device type:

- Arium® Comfort I
- Arium® Bagtank Remote Dispenser
- Arium® Remote Dispenser

Arium® Comfort Pretreatment Cartridge

Reliable protection of the Comfort RO module

- Fast and effective adsorption of impurities through high-grade activated carbon
- Highly efficient catalyst for removing free chlorine

Description

The combination of spherical, catalytically active activated carbon with an added catalyst constitutes the best protection for a downstream reverse osmosis (RO) membrane. It reliably removes oxidation agents, such as free chlorine and ozone, heavy-metal ions and particulate contaminants from the feed water of the system.

A special catalyst is an integral part of pre-treatment. It is particularly efficient at removing free chlorine at a lower temperature and | or higher pH value compared to activated carbon alone.

The patented cartridge design ensures minimal time expenditure with ultra-easy installation and exchange.

Technical Specifications | Ordering Information

Materials	
Housing	High-quality polypropylene
Cleaning media	Spherical, catalytic activated carbon
Dimensions [W × H × D]	18 × 26 × 11 cm
Operating weight	3.5 kg
Feed water requirements	See “Technical Specifications” page 2

Order number	Description
H2O-CPFCO-1	Arium® Comfort Pretreatment Cartridge, 1 pc

Intended Use

Device type:

- Arium® Comfort I

Arium® RO Modules

Reverse osmosis modules with low-energy membranes

- Highly efficient reverse osmosis membranes, optimized water consumption
- Low-energy membranes for ecological and economical operation
- Backflush with product water increases the service life
- Easy replacement
- Constant flow
- Consistently high water quality

Description

The Arium® RO modules consist of two independent membranes whose design guarantees easy installation and reliable operation. Each of the two modules contains a low-energy reverse osmosis membrane in a polypropylene housing.

The housing has connections for feed water, permeate (product water) and concentrate (discarded water). The RO modules enable an ideal water yield, thereby optimizing the water consumption. At the same time, up to 98 % of the salts are typically retained. Thanks to the backflush with permeate, particles and salts are removed from the surface of the membrane.

This results in a longer service life and lower system maintenance costs. In addition, this backflush function on restarting the system after a standstill allows for the immediate dispensing of high quality water.

Technical Specifications | Ordering Information

Materials	
RO membranes	Low-energy membrane made of polyamide
Housing	Polypropylene

Dimensions for each module	
Height	30.8 cm
Diameter	7.8 cm
Weight	0.468 kg
Product Water Quality	See “Technical Specifications” page 2

Order number	Description
613CPM4	Arium® RO Module, 1 pc
613CPM4–––V	Arium® RO Module, 2 pcs

Intended Use

Device type:

- Arium® Comfort I

Arium®Comfort kit

Deionization cartridge featuring top-down technology

- High performance capacity thanks to efficient ion exchange resins
- Fast and effective adsorption of impurities through high-grade activated carbon
- Optimized crossflow behavior, prevents separation of the resin mixed-bed
- Patented connection method, easy replacement of consumables

Description

The cartridge sets are optimized for the removal of both organic and inorganic constituents. The set was designed specifically to match the unit and delivers ultrapure water that even exceeds the ASTM type 1 quality standard. This consistent level of high-quality water ensures optimal reproducibility of your results.

Optimized filling materials, such as highly effective activated carbon coupled with highly efficient ion exchange resins, deliver long lasting performance and low-maintenance operation.

The top-down flow technology produces ideal purification kinetics and prevents any mixing of cleaning media. The cartridge was designed with the applicable standards for flow rate in the cross section and contact time with the medium in mind.

Technical Specifications | Ordering Information

Materials	
Housing	High-purity polypropylene
Fixing screws	Stainless steel
Cleaning media	Spherical, catalytic activated carbon Ultrapure mixed bed ion exchange resin in semiconductor quality
Further data on product water quality	See “Technical Specifications” page 2

Order number	Description
H2O-C-PACK	Arium® Comfort Kit, 1 pc

Intended Use

Device type:

- Arium® Comfort I

Arium® UV Lamp (185 | 254 nm)

Ultrapure water, free of TOC

- Horizontal installation, optimized temperature gradient
- Effectively destroys organic compounds
- Easy replacement

Description

The horizontally arranged UV lamp delivers especially reliable results. Unlike vertical units, the temperature gradient is less pronounced and does not affect the activity of UV waves.

The two different wavelengths reliably removes organic substances (TOC or total organic carbon).

Technical Specifications | Ordering Information

Materials	Fused silica
TOC value for product water*	<2 ppb

Order number	Description
611CEL1	Arium® UV Lamp (185 | 254 nm), 1 pc

Intended Use

Device type:

- Arium® Comfort I (UV & TOC version)

* Feed water < 50 ppb TOC

Arium® RO Cleaning Set

Maximum service life of the RO module
- Effective removal of scaling and metal deposits
- Elimination of organic compounds
- Dispersion of colloids
- Stable pH values
- Gentle on materials

Description

Two-stage cleaning kit for removing scaling and organic contaminants.

The alkaline substance contains non-foaming surfactants that dissolve organic compounds, disperse colloids and can be quickly removed again from the membrane surface. Cleaning efficiency depends on the pH value that is steadily maintained by buffer substances through a large temperature range.

The acidic cleaning agent to remove scaling contains chelate and reducing agents in order to dissolve metallic deposits. The ideal pH value also remains consistently low over a wide range during cleaning in this case thanks to the buffers.

Technical Specifications | Ordering Information

Ingredients	
Alkaline cleaner	HEDTA, ethanolamine, triethanolamine
Acidic cleaner	HEDTA, phosphoric acid, citric acid

Order number	Description
H2O-CCS	Arium® RO Cleaning Set, 1 pc

Intended Use
Device type:
- Arium® Comfort I

Sartorius Service

We Ensure the Quality of Your Results

At Sartorius, quality products go hand in hand with professional service. With our wide service offering, we will help guarantee the safe, reliable and optimal operation ofyour Arium® systems. Just ask us and we will even cover the entire life cycle of your laboratory water system – from commissioning to qualification to regular maintenance. Together with you, we will ensure the consistently high quality of your laboratory water purification.

Our Services at a Glance:

Installation and Commissioning
Your advantage: Your system will operate reliably at peak performance from day one

Equipment Qualification (IQ | OQ)
Your advantage: You will meet all regulatory requirements (GMP | GLP)

Regular Preventative Maintenance, Including **Calibration,** inspection and testing of your system and exchange of consumables

Your advantages: Optimal operation of your system; reliable results; prevention of downtime or even equipment failure

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