

Arium® Pro Ultrapure Water Systems

Application-orientated
and flexible to meet
the highest demands

Advantages

- Modular – System selection specifically for your application
- Flexible – Perfect integration into any laboratory
- Easy to use – Display with touch function and intuitive menu
- Fast – Favorites function with direct access for recurring volumes

Product Description

As a reliable source of ultrapure water, the Arium® Pro series offers a flexible and modular system which, compared to conventional devices, demonstrates excellent added value.



All systems meet and exceed the ASTM Type 1 water quality standards and ensure the best reproducible results in their class. Up to 2 L of consistently high-quality ultrapure water with a conductivity of $0.055 \mu\text{S}/\text{cm}$ ($\pm 18,2 \text{ M}\Omega \times \text{cm}$) can be dispensed per minute. The ultrapure water is virtually microorganism-free when an Arium® Sterile Plus final filter is used.

The patented Sartorius technology, the SD card slot, the long service life and low maintenance requirement distinguish the Arium® Pro systems as an easy-to-use, economical and reliable Type 1 ultrapure water system.

Modular

Various device configurations are specifically tailored to your application. Arium® Pro provides any desired ultrapure water quality for critical and standard applications.

“Favorites” function

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

Simplify your daily routine by using the new function to save

time and work more efficiently in the laboratory.

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.

Flexible

The space-saving installation of the device on, under, or above your workstation integrates it perfectly into any laboratory. The positioning of the display and the water dis-

Technical Specifications

ensing point is very flexible.

Dimensions: width × height × depth	35.0 × 49.2 × 45.1 cm
Empty weight	17–19 kg, depending on the device type
Operating weight	27–29 kg, depending on the device type
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 ² , RS-232 interface

Feed Water Quality

Treated water by reverse osmosis, distillation or deionization.¹

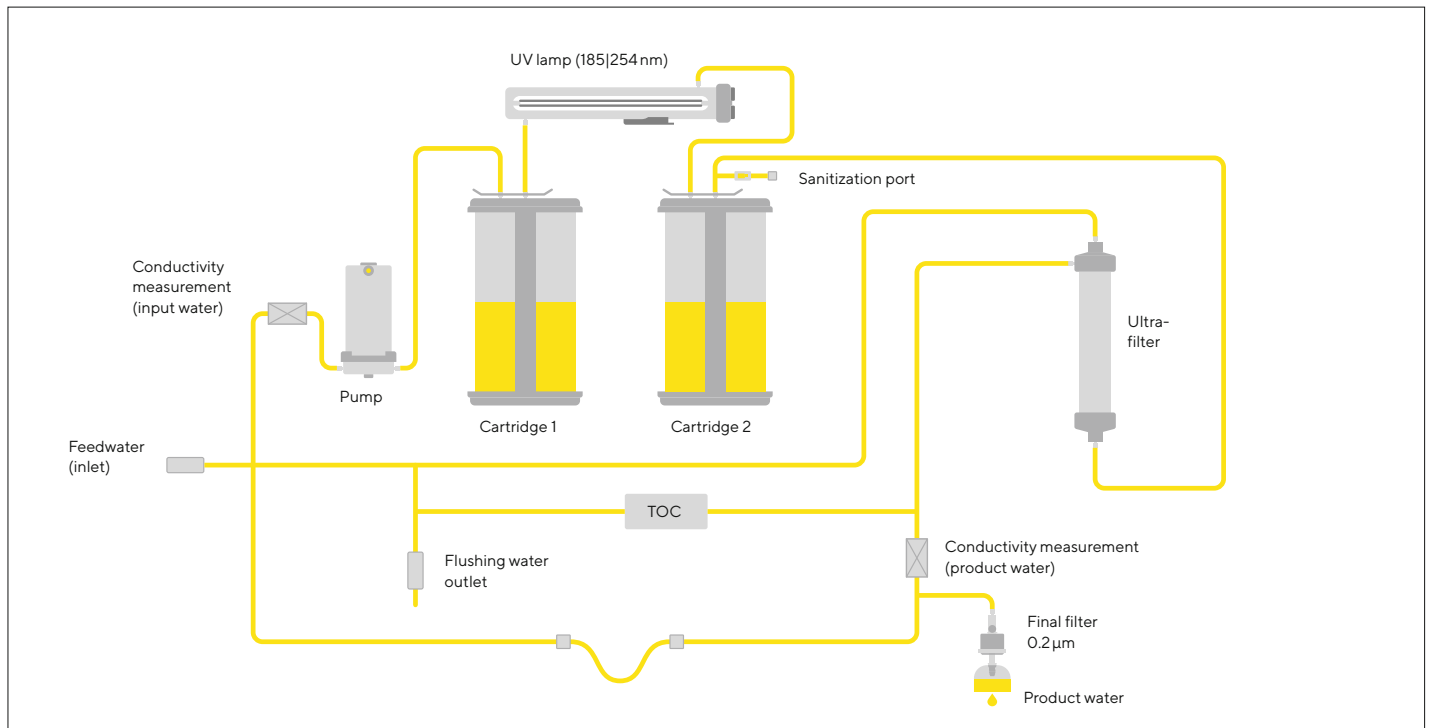
Input pressure ³	0–6.9 bar, recommended > 2 bar
Temperature	2–30°C
Specific conductivity	<100 µS/cm compensated to 25°C
TOC	< 50 ppb
Turbidity	<1 NTU
pH value	4–10

¹ With the Universal Kit, Arium® Pro can be directly fed with untreated drinking water to produce ultrapure water.

The appropriate Sartorius application specialists should be consulted to check the feed water specifications.

² Does not apply to Arium® Pro

³ Dynamic pressure/flow pressure 100 L/h



Flow diagram for Arium® Pro VF TOC

Water Applications

Lab Water System Quality

	Pro	Pro DI	Pro UV	Pro UF	Pro VF
Water Quality					
Type 1 Water	▪	▪	▪	▪	▪
Lab Water System by Daily Water Consumption					
Type 1 ultrapure water 40 - 100 Liter/day	▪	▪	▪	▪	▪
General Laboratory Application					
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	▪	▪	▪	▪	▪
Molecular Biology Lifescience Application					
Electrophoresis				▪	▪
Northern Blot				▪	▪
Southern Blot				▪	▪
Western Blot				▪	▪
Endotoxin analysis				▪	▪
Immunocytochemistry				▪	▪
Production of monoclonal antibodies				▪	▪
PCR (Polymerase Chain Reaction)				▪	▪
DNA Sequencing				▪	▪
Nutrient media for cell culture (Mammalia & plant)				▪	▪
Chromatography				▪	▪
Analytical Application					
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

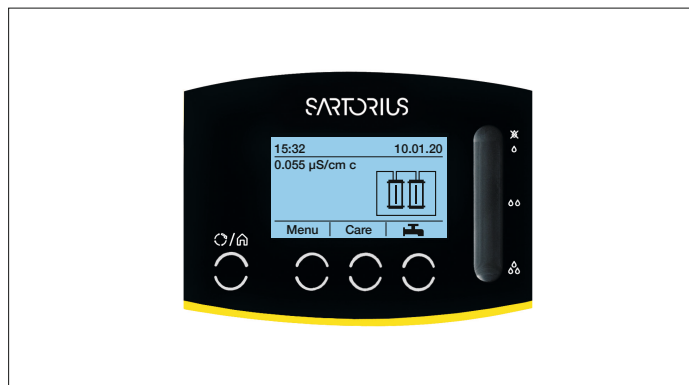
Arium® Pro DI and Arium® Pro

Description

The Arium® Pro DI is a highly efficient water purification system that exceeds ASTM Type 1 ultrapure water for standard applications of all kinds.

Water purification is performed via a 3-step cleaning process. With the specially developed Elemental Kit, organic and inorganic constituents are reliably removed from the feed-water in the first two steps. The third purification step is carried out via the Arium® Sterile Plus final filter directly at the consumer end point and removes particles and bacteria.

A less expensive alternative is the Arium® Pro.



Reduced to the most important functions, this version produces ultrapure water without any compromises.

Product Water Quality

Water purification method	Adsorption by means of spherical activated carbon, deionization, optional end-position particle and sterile filtration
Water type	ASTM Type 1 ultrapure water
Output	120 L/h
Water dispensing flow rate ⁴	0.1 – 2 L/min, adjustable
Volume-controlled dispensing ⁴	2 L/min in 100 mL, 1 L or 5 L steps, depending on the total dispense between 0.1 L and 60 L
Volume accuracy ⁵	3 % between 0.25 L and 60 L
Conductivity ¹	0.055 µS/cm compensated to 25 °C
Resistivity ¹	18.2 MΩ × cm compensated to 25 °C
TOC ³	< 5 ppb
Bacteria ²	< 0.01 CFU/mL
Particle content ²	No particles > 0.22 µm

¹ Measured value output adjustable to 25 °C, compensated or uncompensated

² When using an Arium® Sterile Plus final filter

³ Feedwater < 50 ppb TOC

⁴ At a dynamic flow pressure of 2 bar, depending on the connected accessory or final filter

⁵ Under constant operating conditions

Ordering Information

Arium® Pro DI and Pro systems, for the production of ASTM Type 1 ultrapure water, for standard applications

Scope of supply: 1 Arium® Pro, water guard and connection set

Order number	Description
H2Opro-DI-T	Arium® Pro DI benchtop device
H2Opro-DI-B	Arium® Pro DI wall-mounted device
H2Obasic-T	Arium® Pro benchtop device
H2Obasic-B	Arium® Pro wall-mounted device

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

Arium® Pro UV

Description

Analogous to the Arium® Pro DI, the Arium® Pro UV uses not only 3-step purification technology, but also the removal of organic matter by means of photo-oxidation. With two different wavelengths, the horizontally arranged UV lamp (185 | 254 nm) reliably reduces organic components to a TOC value of ≤ 2 ppb. Tailored to the photo-oxidation process, the Analytical Kit optimizes water purification and selectively removes inorganic and organic substances.

The current TOC values are continuously measured by the optionally integrated TOC monitor and shown on the display.



Product Water Quality

Water purification method	Adsorption by means of spherical activated carbon, deionization, UV irradiation, optional end-position particle and sterile filtration
Water type	ASTM Type 1 ultrapure water
Output	120 L/h
Water dispensing flow rate ⁴	0.1–2 L/min, adjustable
Volume-controlled dispensing ⁴	2 L/min in 100 mL, 1 L or 5 L steps, depending on the total withdraw between 0.1L and 60 L
Volume accuracy ⁵	3% between 0.25 L and 60 L
Conductivity ¹	0.055 µS/cm compensated to 25 °C
Resistivity ¹	18.2 MΩ × cm compensated to 25 °C
TOC ³	≤ 2 ppb
Bacteria ²	< 0.01 CFU/mL
Particle content ²	No particles > 0.22 µm

¹ Measured value output adjustable to 25 °C, compensated or uncompensated

² When using an Arium® Sterile Plus final filter

³ Feedwater < 50 ppb TOC

⁴ At a dynamic flow pressure of 2 bar, depending on the connected accessory or final filter

⁵ Under constant operating conditions

Ordering Information

Arium® Pro systems, for the production of ASTM Type 1 ultrapure water, for chemical-analytical applications such as chromatography

Scope of supply: 1 Arium® Pro with UV lamp (185 | 254 nm), water guard and connection set

Order number	Description
H2Opro-UV-T	Arium® Pro UV benchtop device, including UV lamp
H2Opro-UV-B	Arium® Pro UV wall-mounted device, including UV lamp
H2Opro-UV-T-TOC	Arium® Pro UV benchtop device, including UV lamp and TOC monitor
H2Opro-UV-B-TOC	Arium® Pro UV wall-mounted device, including UV lamp and TOC monitor

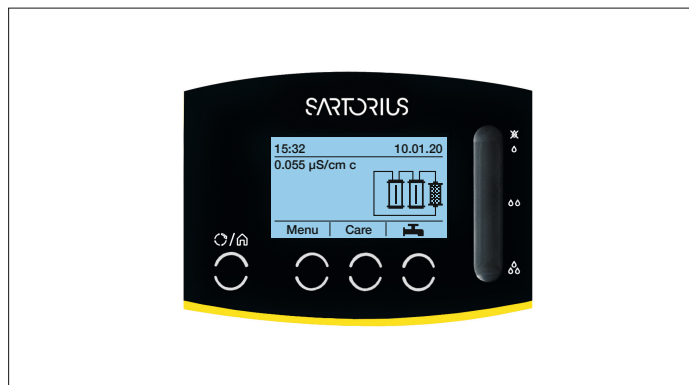
For under-bench installation of the Arium® Pro UV devices please order a comparable bench-top device, as well as the conversion kit described under the accessories (H2O-ACK-D).

Arium® Pro UF

Description

In addition to highly efficient purification components such as activated carbon and highly effective ion exchange resins, the Arium® Pro UF also includes a hollow fiber ultrafilter. By means of cross-flow technology, the ultrafilter reliably removes endotoxins, microorganisms and particles, as well as deoxyribonucleases and ribonucleases from the ultrapure water, thereby making the system ideal for use in the field of cell culture, electrophoresis, etc.

Supported by the top-down flow technology of the Biological Technology Kit cartridge set, the ASTM Type 1 system produces ultrapure water of the highest quality.



Product Water Quality

Water purification method	Adsorption by means of spherical activated carbon, deionization, ultrafiltration, optional end-position particle and sterile filtration
Water type	ASTM Type 1 ultrapure water
Output	120 L/h
Water dispensing flow rate ⁴	0.1–1.7 L/min, adjustable
Volume-controlled dispensing ⁴	1.7 L/min in 100 mL, 1L or 5 L steps, depending on the total dispense between 0.1L and 60 L
Volume accuracy ⁵	3 % between 0.25 L and 60 L
Conductivity ¹	0.055 µS/cm compensated to 25 °C
Resistivity ¹	18.2 MΩ × cm compensated to 25 °C
TOC ³	< 5 ppb
Bacteria ²	< 0.01 CFU/mL
Particle content ²	No particles > 0.22 µm
Endotoxin	< 0.001 EU/ml
RNase content	< 0.004 ng/ml
DNase content	< 0.024 pg/µl

¹ Measured value output adjustable to 25 °C, compensated or uncompensated

² When using an Arium® Sterile Plus final filter

³ Feedwater < 50 ppb TOC

⁴ At a dynamic flow pressure of 2 bar, depending on the connected accessory or final filter

⁵ Under constant operating conditions

Ordering Information

Arium® Pro UF systems, for the production of ASTM Type 1 ultrapure water for biological applications such as cell culture

Scope of supply: 1 Arium® Pro with ultrafilter, water guard and connection set

Order number	Description
H2Opro-UF-T	Arium® Pro UF benchtop device, including ultrafilter
H2Opro-UF-B	Arium® Pro UF wall-mounted device, including ultrafilter

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

Arium® Pro VF

Description

The high-end device delivers ultrapure water of the highest quality and combines the purification technology of the Pro UF and Pro UV devices in one system.

The integrated horizontal UV lamp (185 | 254 nm), combined with the hollow fiber ultrafilter, reduces the TOC to a minimum ≤ 2 ppb, but also removes endotoxins, microorganisms and particles, as well as DNases and RNases and is therefore the perfect solution for a large number of critical applications in the laboratory.



The current TOC values are continuously measured with extreme accuracy by the optionally integrated TOC monitor and shown on the display.

Product Water Quality

Water purification method	Adsorption by means of spherical activated carbon, deionization, ultrafiltration, UV irradiation, optional end-position particle and sterile filtration
Water type	ASTM Type 1 ultrapure water
Output	120 L/h
Water dispensing flow rate ⁴	0.1 - 1.7 L/min, adjustable
Volume-controlled dispensing ⁴	1.7 L/min in 100 mL, 1L or 5 L steps, depending on the total dispense between 0.1L and 60L
Volume accuracy ⁵	3% between 0.25 L and 60 L
Conductivity ¹	0.055 µS/cm compensated to 25 °C
Resistivity ¹	18.2 MΩ × cm compensated to 25 °C
TOC ³	≤ 2 ppb
Bacteria ²	< 0.01 CFU/mL
Particle content ²	No particles > 0.22 µm
Endotoxin	< 0.001 EU/ml
RNase content	< 0.004 ng/ml
DNase content	< 0.024 pg/µl

¹ Measured value output adjustable to 25 °C, compensated or uncompensated

² When using an Arium® Sterile Plus final filter

³ Feedwater < 50 ppb TOC

⁴ At a dynamic flow pressure of 2 bar, depending on the connected accessory or final filter

⁵ Under constant operating conditions

Ordering Information

Arium® Pro VF systems, for the production of ASTM Type 1 ultrapure water

Scope of supply: 1 Arium® Pro with UV lamp (185 | 254 nm), ultrafilter, water guard and connection set

Order number	Description
H2Opro-VF-T	Arium® Pro VF benchtop device, including UV lamp and ultrafilter
H2Opro-VF-B	Arium® Pro VF wall-mounted device, including UV lamp and ultrafilter
H2Opro-VF-T-TOC	Arium® Pro VF benchtop device, including UV lamp, ultrafilter and TOC monitor
H2Opro-VF-B-TOC	Arium® Pro VF wall-mounted device, including UV lamp, ultrafilter and TOC monitor

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

Accessories

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® Pro DI, Pro UF, Pro UV and Pro VF

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 SterilePlus 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.



To guarantee sterile and particle-free water removal, an Arium® Sterile Plus final filter with a 0.22 µm pore size can be easily connected.

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® Pro DI, Pro UF, Pro UV and Pro VF

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 SterilePlus 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. To guarantee sterile and particle-free water removal, an Arium® Sterile Plus final filter with 0.22 µm pore size can be

easily connected.

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® Pro DI, Pro UF, Pro UV and Pro VF

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 SterilePlus 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

be easily connected.

Technical Specifications | Ordering Information

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



radius can be ideally adjusted to meet the user's requirements, thereby enabling relaxed working. .

To guarantee sterile and particle-free water removal, an Arium® Sterile Plus final filter with a 0.22 µm pore size can

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® Pro DI, Pro UF, Pro UV and Pro VF

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	3/8" Plug-in connector
Output	3/8" Plug-in connector
Power supply	100 – 240 VAC 50 – 60 Hz

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

Intended Use

Device type:

- Arium® Pro, Pro DI, Pro UF, Pro UV and Pro VF

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, 1pc

Intended Use

Device type:

- Arium® Pro DI, Pro UF, Pro UV, and Pro VF

Arium® Level Sensor

Practical filling of separate tanks

- Flexible water transport to any location
- Any tank system can be filled

Description

The level sensor makes it easy to connect an external water storage tank and subsequently fill a tank with ultra-pure water.



Technical Specifications | Ordering Information

Level sensor length	88 mm
Connection diameter	2.03 cm (max.)
Drill hole	1.65 cm
Cable length	3 m

Order number	Description
H2O-ALS1	Arium® Level Sensor, 1 pc

Intended Use

Device type:

- Arium® Pro DI, Pro UF, Pro UV, and Pro VF

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]	241.3×139.9×177.4mm
Interface	RS-232 (max 115,200 bps) – USB 2.0 (full speed)
Power supply	External universal switching power supply <ul style="list-style-type: none"> ▪ Input: 100 – 240 V~ ▪ Output: 24 V-; 2.5 A

Order number	Description
YDP30	Printer, 1pc
SB-12-01-0250	Connection cable Arium® (required), 1pc
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® Pro DI, Pro UF, Pro UV and Pro VF

Consumables

Arium® Pro Cartridge Sets

Pretreatment and post-treatment cartridge using top-down technology

- High performance capacity thanks to efficient ion exchange resins
- Effective adsorption of impurities through high-grade activated carbon
- Optimized flow pattern, prevents separation of the mixed resin bed
- Patented connection process simplifies the replacement of consumables

Description

The cartridge sets are optimized for the removal of both organic and inorganic constituents. Every set has been 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 purification materials such as highly effective activated carbon coupled with a efficient ion-exchange resins deliver long-lasting performance and thereby ensure long



maintenance intervals.

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 carbons Ultrapure mixed bed ion exchange resin
Feed water requirements	see "Technical Specifications" page 2

Exchange capacity for 18.2 MΩ × cm ultrapure water relative to CaCO₃

	[Grain]	[Equivalent]
Analytical Kit	965	1.25
Biological Kit	1,14	1.48
Elemental Kit	1,268	1.64
Universal Kit	965	1.25

* With the Universal Kit, Arium® Pro can be directly fed with untreated drinking water to produce ultrapure water. The appropriate Sartorius application specialists should be consulted to check the feed water specifications.

Order number	Description
H2O-A-PACK	Analytical Kit, Arium® Pro cartridge set for biological, chemical-analytical and standard ultrapure water applications, 1 pc
H2O-B-PACK	Biological Kit, Arium® Pro cartridge set for biological ultrapure water applications, 1 pc
H2O-E-PACK	Elemental Kit, Arium® Pro cartridge set for standard ultrapure water applications, 1 pc
H2O-U-PACK*	Universal Kit, Arium® Pro cartridge set for untreated feedwater*, 1 pc

Intended Use

Device type:

- H2O-A-PACK Arium® Pro VF and Pro UV
- H2O-B-PACK Arium® Pro UF
- H2O-E-PACK Arium® Pro and Pro DI
- H2O-U-PACK* Arium® Pro, Pro DI, Pro UF, Pro UV and Pro VF

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® Pro, Pro DI, Pro UF, Pro UV, and Pro VF
- Arium® Remote Dispenser

Arium® UV Lamp (185 | 254 nm)

Ultrapure water, free of TOC

- Horizontal installation, optimized temperature gradient
- Effectively removes 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*	<2ppb

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

Intended Use

Device type:

- Arium® Pro UV and Pro VF

* Feed water < 50 ppb TOC

Arium® Ultrafilter

Ultrapure water, free from endotoxins, DNases and RNases

- High flow rates
- Integrity tested
- Long service lives
- Certified quality

Description

The hollow-fiber ultrafilter utilizes crossflow technology to reliably remove bacterial endotoxins, micro-organisms and particles, as well as DNases and RNases from the ultrapure water.

The filters are developed and produced in accordance with a DIN EN ISO 9001|DIN EN 46 001 certified quality assurance system which fulfills the prerequisites of the Quality System Regulation (Regulation on Quality Systems of the FDA) 21 CFR Part 820. During the manufacturing process, every unit is integrity tested to meet the highest quality standards and safety regulations.



Technical Specifications | Ordering Information

Materials	
Membrane	Polysulfone
Composite material	Polyurethane (PUR)
Housing, caps	Polycarbonate (PC)
Plugs	Polypropylene (PP)
Efficient membrane surface	2.1 m ²
Max. operating pressure	3 bar at room temperature
Sterilization	200 ppm sodium hypochlorite, 45 min, max. 1×/week
Tank volume	
Lumen	152 ml
Filtrate side	306 ml

Retention of bacteria and endotoxins	
<i>Brev. diminuta</i>	LRV 7 – 10
<i>E. coli</i> O55:B5 endotoxin	LRV > 3,5
Natural endotoxins	LRV > 3,0
Dimensions of the fibers	
Interior diameter	215 µm
Wall thickness	50 µm
Molecular weight cut-off (MWCO)	5,000 (= 5 kD)
Order number	Description
611CDU5	Arium® Ultrafilter, 1pc

Intended Use

Device type:

- Arium® Pro VF and Pro UF

Arium® Cleaning Solution

Effective cleaning for a long lifetime

- Highly effective cleaning
 - Free of TOC (organic components)
- Surfactant-free
- Environmentally safe and gentle on the materials

Description

With this cleaning agent, the regular removal of impurities that develop during water purification is easy and effective, this results in higher flow rates and longer service lives.

This highly effective agent is already filled in 50 ml syringes and ready for direct connection.



Technical Specifications | Ordering Information

Ingredients

Sodium hypochlorite

Order number

611CDS1

Description

Arium® Cleaning Solution,
50 ml cleaning solution
filled into syringes, 1 pc

Intended Use

Device type:

- Arium® Pro DI, Pro UF, Pro UV and Pro VF

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 of your 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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