SARTORIUS

Product Datasheet

Arium® Pro Ultrapure Water Systems

Application-orientated and flexible to meet the highest demands



DOMINIQUE DUTSCHER SAS

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 produce consistent ASTM Type 1 ultrapure water quality and provide the best reproducible results.
The ultrapure water can be dispensed at up to 2 liters per minute with a conductivity of 0.055 µS/cm (18.2 MΩ × cm).
When using an Arium® Sterile Plus final filter, the ultrapure water is virtually free of microorganisms.

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 delivers any desired ultrapure water quality for general, analytical and life science 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 dispensing point is very flexible.

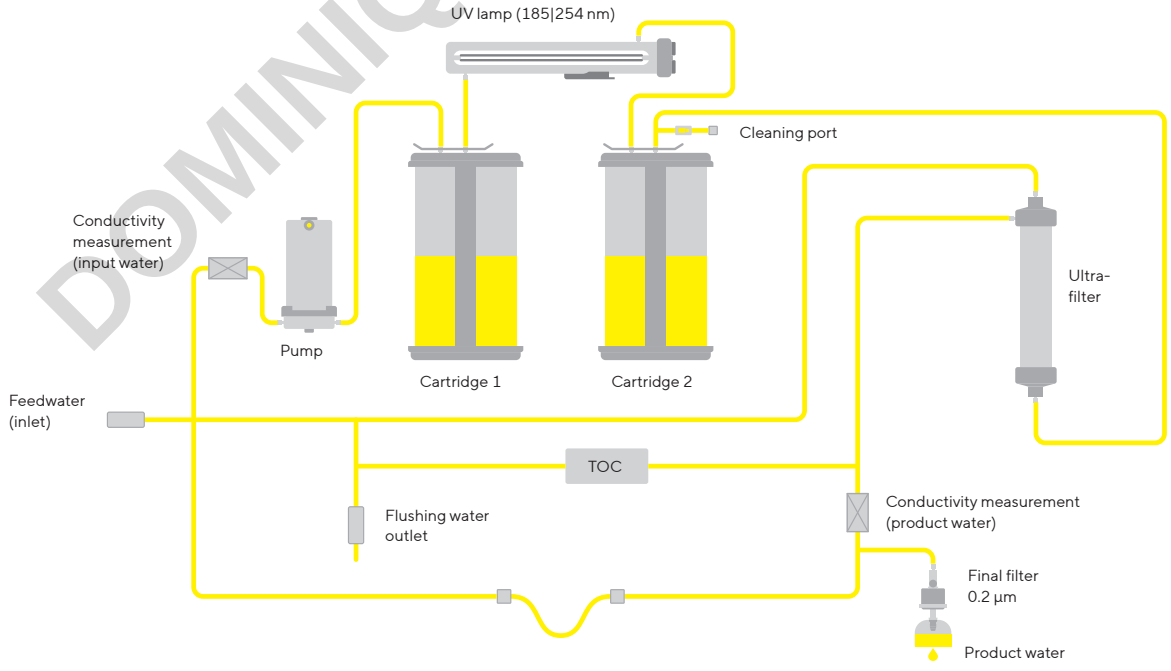
Technical Specifications

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 slot², RS-232 interface

Feed Water Quality
Treated water by reverse osmosis, distillation or deionization.[1]

Input pressure³	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

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Water Applications

	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 approx. 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	▪	▪	▪	▪	▪
Molocular Biology | Lifescience Application					
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					
SPE (Solid phase extraction)			▪		▪
Trace metal analysis			▪		▪
IC (Ion chromatography)			▪		▪
ICP-MS (Inductively Coupled Plasma Mass Spectrometry)			▪		▪
LC-MS (Liquid Chromatography with 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

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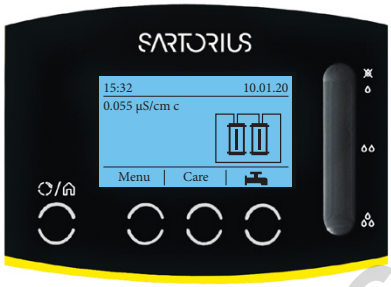
Arium® Pro DI and Arium® Pro

Description

The Arium® Pro DI produces ASTM Type 1 ultrapure water and is used for standard daily laboratory applications.

The water is treated using the specially developed Elemental Kit, which reliably removes organic and inorganic impurities from the feed water using a mixture of activated carbon and ion exchange resins.

To protect against contamination by particles and bacteria, an Arium® Sterile Plus can additionally be connected at the consumer endpoint.



A more cost-effective alternative is the Arium® Pro. Reduced to the most important functions, it produces ultrapure water without compromising quality.

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]	0.05 in 0.05 L step, 0.1 – 2.0 L in 0.1 L steps, 2.0 – 20 L in 1 L steps, 20 – 50 L in 5 L steps
Volume accuracy[5]	3% between 0.25 L and 50 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]	< 0.001 CFU/mL
Particle content[2]	No particles > 0.2 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

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Ordering Information

Arium® Pro DI and Pro systems, for the production of ASTM Type 1 ultrapure water
Scope of supply: 1 Arium® Pro or Pro DI, 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).

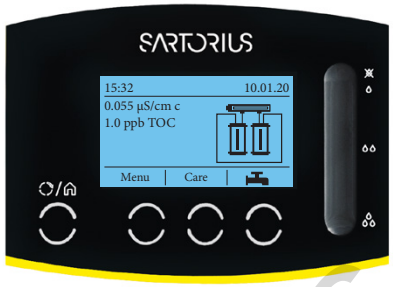
Arium® Pro UV

Description

The Arium® Pro UV produces ASTM Type 1 ultrapure water and is used for critical analytical applications in the laboratory.

In addition to the removal of organic and inorganic impurities via the Analytical Kit, by means of a mixture of activated carbon and ion exchange resins, the Arium® Pro UV also purifies the water via a UV lamp.

The UV lamp (185|254 nm) reduces organic components to a minimum (TOC ≤ 2 ppb) and thus ensures reliable and precise analytical results.



Current TOC values can be continuously measured by the optionally integrated TOC monitor and shown on the display.

An Arium® Sterile Plus can also be connected to the consumer endpoint to protect against particulate and bacterial contamination.

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]	0.05 in 0.05 L step, 0.1 – 2.0 L in 0.1 L steps, 2.0 – 20 L in 1 L steps, 20 – 50 L in 5 L steps
Volume accuracy[5]	3% between 0.25 L and 50 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]	< 0.001 CFU/mL
Particle content[2]	No particles > 0.2 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
Scope of supply: 1 Arium® Pro with UV lamp (185 | 254 nm), water guard and connection set

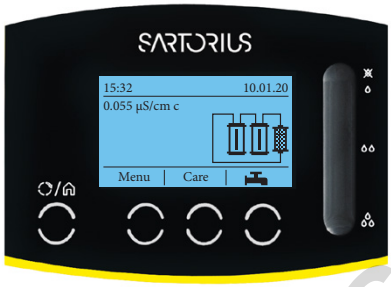
Order number	Description
H2Opro-UV-T	Arium® Pro UV benchtop device, including UV lamp
H2Opro-UV-B	Arium® Pro UV wall-mounted device, including UV lamp
H2Opro-UV-T-TOC	Arium® Pro UV benchtop device, including UV lamp and TOC monitor
H2Opro-UV-B-TOC	Arium® Pro UV wall-mounted device, including UV lamp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

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Arium® Pro UF

Description



The Arium® Pro UF produces ASTM Type 1 ultrapure water and is used for critical biological applications in the laboratory.

The water is first treated with the Elemental Kit, using a mixture of activated carbon and ion exchange resins to remove organic and inorganic impurities.

Subsequently, purification takes place via an ultrafilter using cross-flow technology. The ultrafilter reliably removes endotoxins, DNases and RNases, making the system ideal for use in cell culture or critical biological applications.

To protect against contamination by particles and bacteria, an Arium® Sterile Plus can additionally be connected at the consumer endpoint.

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]	0.05 in 0.05 L step, 0.1 – 2.0 L in 0.1 L steps, 2.0 – 20 L in 1 L steps, 20 – 50 L in 5 L steps
Volume accuracy[5]	3% between 0.25 L and 50 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]	< 0.001 CFU/mL
Particle content[2]	No particles > 0.2 µm
Endotoxin	< 0.001 EU/mL
RNase concentration	< 1 pg/mL
DNase concentration	< 5 pg/mL

[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

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Ordering Information

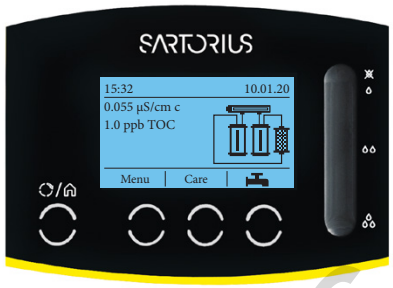
Arium® Pro UF systems, for the production of ASTM Type 1 ultrapure water
Scope of supply: 1 Arium® Pro with ultrafilter, water guard and connection set

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 Arium® Pro VF is the high-end instrument and produces ASTM Type 1 ultrapure water for both critical biological and critical analytical applications.

In addition to water treatment via the Analytical Kit, using activated carbon and ion exchange resins, the Arium® Pro VF combines the advantages of the Arium® Pro UV and Arium® Pro UF in one system.

The combination of integrated UV lamp (185|254) and ultrafilter thus not only provides a reduction of organic contamination to a minimum (TOC ≤ 2 ppb), but also simultaneously removes endotoxins, as well as DNases and RNases. This makes the Arium® Pro VF ideal for a variety of different critical applications in the laboratory.

Current TOC values can be continuously measured by the optionally integrated TOC monitor and shown on the display.

An Arium® Sterile Plus can also be connected to the consumer endpoint to protect against particulate and bacterial contamination.

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	0.05 in 0.05 L step, 0.1 – 2.0 L in 0.1 L steps, 2.0 – 20 L in 1 L steps, 20 – 50 L in 5 L steps
Volume accuracy[5]	3% between 0.25 L and 50 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]	< 0.001 CFU/mL
Particle content[2]	No particles > 0.2 µm
Endotoxin	< 0.001 EU/ml
RNase concentration	< 1 pg/mL
DNase concentration	< 5 pg/mL

[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

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Ordering Information

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

Scope of supply: 1 Arium® Pro VF 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).

Additional product water specifications when connected to an Arium® Smart Station[1] final filter

Particle content[2]	No particles > 0.2 µm
Bacteria[2]	< 0.001 CFU/mL
Endotoxins[3]	< 0.001 EU/mL
RNase concentration[3]	< 1 pg/mL
DNase concentration[3]	< 5 pg/mL
Water dispensing flow rate[4]	Up to 2 L/min
Volume-controlled removal	0.05 – 50 L in 50 mL steps

[1] Connected to an Arium® Pro DI, UV, UF and VF
[2] When using an Arium® Sterile Plus (Sartopore® 2 150 final filter)
[3] When using an Arium® Cell Plus final filter
[4] Depending on the connected Arium® Pro, hydrostatic pressure, connected accessories or end filter

Accessories and final filters for the Arium® Smart Station can be found in the Arium® Smart Station data sheet.

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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.

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Technical Specifications | Ordering Information

Dimensions	
Tubing	1/4“
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® Smart Station

Remote dispensing at high flexibility

- Compact: Save space integrating in your lab
- Intuitive: Touch-activated color display with direct access to all important functions
- Flexible: Stepless height adjustment to fill different size containers
- Accurate: Precise volume dispense for reliable buffer and sample preparation



Description

The Arium® Smart Station is designed for flexible remote dispensing of ultrapure water directly at the point of use. While dispensing water into a broad range of different sized containers, the Smart Station offers constant control of every important quality parameters, at all times. The ergonomic design supports left-and right-hand operation and can be easily adjusted to your need.

Additionally, for maximum flexibility, you can connect up to three Smart Stations to the Arium® Pro. By using the available hose extension set, the distance between each dispense device, can be extended up to 4 meters.

Furthermore, different point-of-use filters for different applications can be added to the individual Smart Stations, as required.

Arium® Smart Station Ultrapure:
Supplies ultrapure water from Arium® Pro



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Technical Specifications | Ordering Information

Dimensions Smart Station Bench-Top	
Control box with stand (w × d × h)	213 × 213 × 598 mm (8.4 × 8.4 × 8.2″)
Operating range fixed dispense arm (d × w × h)	428 × 476 × 835 mm (16.9 × 18.7 × 32.9″)
Tubing Length: Distance to water system	2 Meter
Operating range flexible hand held	0.7 Meter
Weight	Approx. 4.9 kg (10.8 lbs)

Dimensions Smart Station Wall-Mounted	
Control box (w × d × h)	172 × 157 × 343 mm (6.8 × 6.2 × 13.5″)
Operating range dispense arm (d × w × h)	242 × 90 × 300 mm (9.5 × 3.5 × 11.8″)
Tubing Length: Distance to water system	2 Meter
Operating range flexible hand held	0.7 Meter
Weight	Approx. 2.4 kg (5.3 lbs)

General Specifications	
Volume-controlled dispensing	0.05 - 50 L in 50 mL steps
Volume accuracy	±5% between
Power supply	100 – 240 VAC; 50 and 60 Hz, 2.5 A (max.) 2 °C – 40 °C
Power cord (IEC 60320-1 / C14)	Country specific

Order number	Description
H2O-ARST-UP-T	Arium® Smart Station Ultrapure for benchtop installation
H2O-ARST-UP-B	Arium® Smart Station Ultrapure for wall-mounted installation

Benchtop and wall-mounted edition can be assembeled for left or right hand side, without additional equipment required.

Accessories and final filters for the Arium® Smart Station can be found in the Arium® Smart Station data sheet.

Intended Use

Device type:

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

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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 that the activation of the guard would not be 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 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® Pro, Pro DI, Pro UF, Pro UV and Pro VF

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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 dispense be performed with both hands, e.g. for switching vessels, and minimizes the risk of contamination in the clean room.

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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® 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 ultrapure water.

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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.

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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® Pro, 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

Order number	Description
H2O-A-PACK	Analytical Kit, Arium® Pro cartridge set for biological, 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 feed water*, 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

* 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.

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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.

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Technical Specifications | Ordering Information

Materials	
Membranes	Asym. Polyethersulfone
Bell assembly	Polycarbonate
Other plastics	Polypropylene

General Specifications	
Pore size	0.45 µm × 0.2 µm
Filtration area	0.015 m²
Input and Output	¼" Plug-in connector
Sterilization (max. 3 cycles)	Autoclaving at 134 °C, 2 bar, 30 min.
Max. diffusion	1 mL/min @ 2.5 bar
Min. bubble point	3.2 bar

Typical Specifications	
Bacteria	< 0.001 CFU/mL
Particle content	No particles > 0.2 µm

Order number	Description
5441307H4--CE	Arium® Sterile Plus (Sartopore® 2 150 Capsule), 0.2 µm pore size, 1 pc

Intended Use

Device type:

- Arium® Smart Station Ultrapure
- Arium® Pro, Pro DI, Pro UF, Pro UV and Pro VF

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 down to a TOC (total organic carbon) ≤ 2 ppb*

DOMINIQUE DUTSCHER SAS

Technical Specifications | Ordering Information

Typical Specifications	
TOC value for product water*	≤ 2 ppb

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.

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Technical Specifications | Ordering Information

Materials	
Membrane	Polysulfone
Composite material	Polyurethane (PUR)
Housing, caps	Polycarbonate (PC)
Plugs	Polypropylene (PP)
Efficient membrane surface	2.1 m²
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

Reduction of nucleases	
RNase concentration	< 1 pg/ml
DNase concentration	< 5 pg/ml

Retention of bacteria and endotoxins	
Brev. diminuta	LRV 7 – 10
E. coli 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, 1 pc

Intended Use

Device type:

- Arium® Pro VF and Pro UF

Arium® Cleaning Solution

Effective cleaning for a long lifetime

- Highly effective cleaning
- Free of organic components
- Surfactant-free
- 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.

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Technical Specifications | Ordering Information

Ingredients
Sodium hypochlorite

Order number	Description
611CDS1	Arium® Cleaning Solution, 50 mL cleaning solution filled into syringes, 1 pc

Intended Use

Device type:

- Arium® Pro UF 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 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:

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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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