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sartorius

arium® comfort I

Space-saving Twin Technology



arium® comfort I with iJust

- Safe –
TOC content \leq 2 ppb for
reproducible results
- Optimized water
consumption –
automatic with iJust
- Easy to use –
display with touch function
and intuitive menu

Description

Sartorius presents 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 specially for the production of the highest quality ultrapure water. Compared to conventional water systems, the arium® comfort I optimizes water consumption using the integrated iJust control unit. This unique display with touch function and intuitive menu navigation ensures the most ease of use.

With the optional integrated TOC Monitor, its compact design, the flexible display and the SD card slot, the arium® comfort I is the optimal choice for any critical laboratory applications.

Applications

- HPLC
- GC-MS, AAS, ICP-MS
- Ion chromatography
- TOC-Analysis
- Photometry
- Buffer solutions
- Feed water for laboratory devices, such as autoclaves, glassware washers etc.

Lowest TOC content

The optional integrated UV lamp (185 | 254 nm) avoids microbiological growth and reduces the content of TOC to a minimum. Reproducible and reliable results are guaranteed due to the low TOC content of up to \leq 2 ppb.

iJust

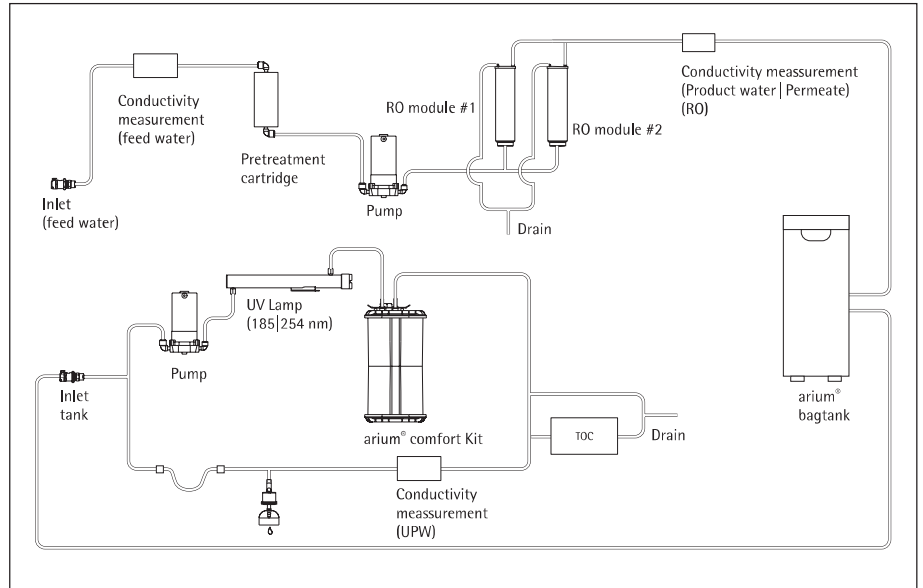
The iJust conceals an innovative technology that optimizes the water consumption and the quality of the product-water. The intelligent arium® software controls a valve on the concentrate outlet corresponding to the measurement data for CaCO_3 and CO_2 .

- Optimized, economic water consumption
- Premium product-water quality at all times
- Guaranteed longer life of down-stream ultrapure water systems

Display with touch function

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

Technical Specifications



Flow chart arium® comfort I (H2O-I-2-TOC-T)

Technical Specifications

| | |
|------------------------------------|---|
| Water purification methods | Adsorption by spherical activated carbon, catalyst, reverse osmosis, deionization, UV radiation, optional final particle and sterile filtration |
| 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% rel. humidity |
| Storage temperature | 5°C – 45°C at max. 80% rel. humidity |
| Data output | SD card slot, RS-232 interface |

arium® comfort I systems for producing ASTM Type 1 ultrapure water and Type 3 pure water

Equipment supplied: 1 arium® comfort I, Reverse Osmosis Module(s) and Connection Set, optional with UV Lamp, TOC Monitor

| Order Number System without UV Lamp and TOC Monitor | Order Number System incl. UV Lamp | Order Number System incl. UV Lamp and TOC Monitor | Description |
|---|-----------------------------------|---|--|
| H2O-I-1-T | H2O-I-1-UV-T | H2O-I-1-TOC-T | arium® comfort I Bench-Top system in a compact design for every laboratory workstation, Type 3 production flow rate 8 l/h |
| H2O-I-1-B | H2O-I-1-UV-B | H2O-I-1-TOC-B | arium® comfort I space-saving Wall-Mounted system with integrated wall bracket, Type 3 production flow rate 8 l/h |
| H2O-I-2-T | H2O-I-2-UV-T | H2O-I-2-TOC-T | arium® comfort I Bench-Top system in a compact design for every laboratory workstation, Type 3 production flow rate 16 l/h |
| H2O-I-2-B | H2O-I-2-UV-B | H2O-I-2-TOC-B | arium® comfort I space-saving Wall-Mounted system with integrated wall bracket, Type 3 production flow rate 16 l/h |

To install arium® comfort I as a built-in unit, please order the corresponding bench-top system and a conversion kit H2O-ACK-D described under the Accessories.

Product Water Quality

| Type of water | ASTM Type 1 | Type 3 |
|--|---|------------------|
| Output ⁶ | 120 l/h | 8 or 16 l/h |
| Water dispensing flow rate ⁴ | up to 2 l/min | up to 3 l/min |
| Volume controlled output ⁴ | 2 l/min in 100 ml, 1 l or 5 l steps, – depending on total dispense between 0,1 l and 60 l | – |
| Volume accuracy ⁵ | 3 % in the range of 0.25 l and 60 l | – |
| Typical conductivity ⁵ | – | < 20 µS/cm |
| Typical resistivity ⁵ | – | < 0.05 MΩ × cm |
| Conductivity ¹ | 0.055 µS/cm compensated to 25 °C | – |
| Resistivity ¹ | 18.2 MΩ × cm compensated to 25 °C | – |
| TOC content ³ (System with UV Lamp) | ≤ 2 ppb | – |
| TOC content ³ (System without UV Lamp) | < 5 ppb | – |
| Microorganism content ² | < 1 CFU/1,000 ml | < 1 CFU/1,000 ml |
| Particle content ² | < 1/ml | < 1/ml |
| Typical Ion retention | – | up to 98% |
| Retention of dissolved organic substances (MW > 300 Dalton) | – | > 99 % |
| Particle and microorganism retention | – | > 99 % |

Feed Water Quality

Exclusively potable water acc. to the drinking water regulations of the USA, the European Union, or Japan.

| | |
|---|------------------------------------|
| Input pressure | 0,5 – 6,9 bar, recomb. > 2 bar |
| Temperature | 2 – 30 °C |
| Specific conductivity | < 1,500 µS/cm compensated to 25 °C |
| TOC content | < 2,000 ppb |
| Max. permanent 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 Measured value output is adjustable to 25 °C compensated or non-compensated

² When using an arium® Sterile Filter (Sartopore® 2 150)

³ Determined with municipal water (Goettingen), TOC < 1,000 ppb

⁴ Depending on the arium® bagtank design, hydrostatic pressure, connected accessories and end filter

⁵ Under constant operating conditions

⁶ Depending on the feed water pressure, temperature, and condition of the RO Modules

arium® bagtanks

The most innovative tank system



- Integrated venting filter with check valve securely protects against CO₂ contamination
- Optional rollers provide highest flexibility
- Easy replacement of arium® bags, with no time-consuming sanitization
- High operation safety, no use of cleaning agents

Description

Pure water is stored in the innovative, closed arium® bagtank system. Here, the prepared pure water is securely protected from secondary contaminations. The arium® bagtank system enables high water quality over an extended period, thereby providing for long-term, reproducible results. In contrast to typical water tanks, the arium® bag provides a high degree of user safety and saves time by the elimination of complex sanitization processes with chemicals.

arium® bagtanks are housings that are equipped with arium® bags. The arium® bagtanks are available in 20 l, 50 l, and 100 l volumes. Their space-saving design is adaptable to any laboratory environment, and the optional rollers make the system extremely flexible.

Integrated distribution pumps are a standard components of the 50 l and 100 l bagtanks. An optional additional pump is also available for a 20 l bagtank. Also available is a wall bracket for a space-saving and user-friendly installation of the arium® bagtank 20.

Water dispensing flow rate

| | |
|---|-----------------|
| with pump ¹ | up to 3.0 l/min |
| with pump, dispense gun and sterile-grade filter ² | up to 2.0 l/min |
| without pump ² | up to 1.5 l/min |

Intended Use

System type:
arium® comfort I and comfort II,
arium® advance RO and advance EDI

¹ bagtank 20 is supplied without pump, pump optionally available

² Value only applies for bagtank 20 dispensing site at the same height or lower than the tank connection

³ Note: The arium® bag is not included in the equipment supplied with the arium® bagtank

Technical Specifications

Materials

| | |
|---------|----------------------------|
| bagtank | Stainless steel plastics |
| bag | S71 Film |
| Tubing | PE silicon |

Dimensions, without rollers and wall brackets [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 liter |
| bagtank 50 | 1×50 liter |
| bagtank 100 | 2×50 liter |

| | |
|---------------------------|---------------------------------------|
| Power supply ¹ | 240 VAC (± 10%), 50 Hz, 120 VA (max.) |
|---------------------------|---------------------------------------|

| | |
|--|---------------------------------------|
| Power supply, US versions ¹ | 115 VAC (± 10%), 60 Hz, 170 VA (max.) |
|--|---------------------------------------|

| | |
|-----------------------|--|
| 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× ³ / ₈ " PLC Quick Coupling |
|------------------------|---|

Water connection output

| | |
|-------------------------|---|
| bagtank 20 ¹ | 1× ³ / ₈ " PLC Quick Coupling |
| bagtank 50, bagtank 100 | 2× ³ / ₈ " PLC Quick Coupling |

| Order Number | Description |
|-----------------------------|---|
| H20-AOV-20 ³ | arium® bagtank 20 l, without pump, qty. 1 unit |
| H20-AOV-50 ³ | arium® bagtank 50 l, with pump 240 VAC 50 Hz, qty. 1 unit |
| H20-AOV-50-US ³ | arium® bagtank 50 l, with pump 115 VAC 60 Hz, qty. 1 unit |
| H20-AOV-50-W ₃ | arium® bagtank 50 l, without pump, qty. 1 unit |
| H20-AOV-100 ³ | arium® bagtank 100 l, with pump 240 VAC 50 Hz, qty. 1 unit |
| H20-AOV-100-US ³ | arium® bagtank 100 l, with pump 115 VAC 60 Hz, qty. 1 unit |
| H20-AOV-100-W ³ | arium® bagtank 100 l, without pump, qty. 1 unit |
| H20-ADP-20 | arium pump® bagtank 20 l, 240 VAC 50 Hz, qty. 1 unit |
| H20-ADP-20-US | arium pump® bagtank 20 l, 115 VAC 60 Hz, qty. 1 unit |
| H20-ATR | Rollers for arium® bagtank 50 l and bagtank 100, incl. fittings, qty. 4 units |
| H20-CBS-20 | arium® 20 l bag for arium® 20 l bagtank, qty. 2 units |
| H20-CBS-50 | arium® 50 l bag for arium® 50 l and 100 l bagtank, qty. 2 units |
| H20-ATB | Wall bracket for arium® bagtank 20, qty. 1 unit |

arium® Conversion Kit

Flexible Positioning, Easy and Space-Saving Integration



- Optimally integrates into your available laboratory furnishings
- Variable wall-mounting options for the display and dispensing unit save space
- User-friendly display and dispensing unit at eye level for full operator control

Description

The arium® conversion kit enables you to easily install an arium® comfort or an arium® pro bench-top system as a built-in unit.

Its extended tubing as well as its display and dispensing unit let you optimally integrate this equipment into your laboratory environment.

This built-in version saves space on and above your lab bench as the control unit along with the display and dispenser permits variable wall-mounting options to suit your particular requirements.

Technical Specifications

Material

| | |
|---------------|-------|
| Tubing | PVDF |
| Tubing length | 3.4 m |
| Cable length | 3.0 m |

Intended Use

arium® comfort I and comfort II
arium® pro DI, pro UF, pro UV and pro VF

| Order Number | Description |
|--------------|-------------|
|--------------|-------------|

| | |
|-----------|---|
| H2O-ACK-D | arium® conversion kit inclusive wall mounting kit for display dispense unit.* |
|-----------|---|

* The arium® conversion kit can only be used in combination with an arium® bench top system. It is highly recommended to install the conversion kit via the Sartorius Service.

arium® Dispense Gun

Ergonomic water dispensing with an up to 3.7 m working radius



- Extended working area of 3.7 m
- Available with a height-adjustable stand or wall mounting bracket
- Ergonomic design
- Easy-to-use
- Sterile-grade filters connectable

Description

The arium® dispense gun is an ergonomic, easy-to-handle dispensing unit that is excellently suited for dispensing ultrapure water.

Depending on the working environment, you can save space by mounting the dispense gun on the wall or on a stand that is height-adjustable up to 70 cm.

Moreover, the stand lets you work in a relaxed position and allows optimal adjustment to different sized sampling vessels. Thanks to the extended tube guide, the work area has an expanded radius to up to 2.5 m away from the arium® unit and another 1.2 m to the stand.

It is also easy to install a sterile-grade filter Sartopore® 2 150 capsule with 0.2 µm pore size for guaranteed sterile and particulate-free water dispensing.

Technical Specifications

Materials

| | |
|--------------|--------------------------|
| Stand | Aluminum (gray anodized) |
| Dispense gun | Plastic, white finish |
| Tubing | PVDF |

Dimensions without tubing [W × H × D]

| | |
|---|-----------------------|
| Dispense gun with stand | 18.5 × 59.5 × 51.0 cm |
| Dispense gun with wall mounting bracket | 9.0 × 10.0 × 28.5 cm |

Weight without tubing

| | |
|---|---------|
| Dispense gun with stand | 5.60 kg |
| Dispense gun with wall mounting bracket | 0.46 kg |

Intended Use

arium® comfort I and comfort II
arium® pro DI, pro UF, pro UV and pro VF
arium® 611

| Bestellnummer | Beschreibung |
|---------------|--------------|
|---------------|--------------|

| | |
|--------------|--|
| H2Opro-AMDG1 | arium® Dispense Gun inclusive height-adjustable Stand, qty. 1 unit |
| H2Opro-AMDG2 | arium® Dispense Gun inclusive wall mounting kit, qty. 1 unit |

arium® bagtank Dispense Gun

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



- Extended work area of 3.7 m
- Available with height-adjustable stand or with wall brackets
- Ergonomic design
- Easy-to-use
- Sterile-grade filter can be connected

Description

The arium® dispense gun is an ergonomically designed, easy-to-use dispensing unit and is perfectly suited for dispensing pure water.

Depending on the work environment, either position the dispense gun on the wall to save space or on the 70 cm height-adjustable stand. Moreover, the stand lets you work in a relaxed position and allows optimal adjustment to different sized sampling vessels. The extended tube guide ensures a work area 2.5 m away from the arium® bagtank or pressure tank and a further 1.2 m from the stand.

A sterile-grade Sartopore® 2 150 capsule with 0.2 µm pore size can be easily connected for guaranteed sterile and particle-free water dispensing.

Order Number Description

| | |
|-----------|--|
| 613-AMDG1 | arium® Dispense Gun inclusive height-adjustable Stand, qty. 1 unit |
| 613-AMDG2 | arium® Dispense Gun inclusive wall mounting kit, qty. 1 unit |

Technical Specifications

Materials

| | |
|--------------|--------------------------|
| Stand | Aluminum (gray anodized) |
| Dispense gun | Plastic, white finish |
| Tubing | PE |

Dimensions without tubing [W × H × D]

| | |
|---|-----------------------|
| Dispense gun with stand | 18.5 × 59.5 × 51.0 cm |
| Dispense gun with wall mounting bracket | 9.0 × 10.0 × 28.5 cm |

Weight without tubing

| | |
|---|---------|
| Dispense gun with stand | 5.60 kg |
| Dispense gun with wall mounting bracket | 0.46 kg |

Intended Use for arium bagtanks:

arium® bagtank 20*
 arium® bagtank 50
 arium® bagtank 100
 arium® pressure tank 30
 arium® pressure tank 50
 arium® pressure tank 70
 arium® pressure tank 100

* suitable only with optionally available distribution pump

arium® Display Mounting Kit

All menu functions directly at the dispensing port



- Visual quality control directly at the water-dispensing port
- System control directly at the work place
- Optimal customization to the variously sized sampling vessels
- Water dispensing using the slider
- Radius extends up to 2.5 meters
- Sterile-grade filters connectable

Description

The display mounting kit not only extends the working radius up to 2.5 meter from arium® ultrapure water system, but at the same time enables the control of the unit and monitors the ultrapure water quality directly at the dispensing port. The bracket is integrated in the stand to which the flexible arium® display is mounted. This creates a combination that provides complete access to the menu with all its functions along with the practical convenience of a dispense gun.

Moreover, the over 70 cm height-adjustable stand lets you work in a relaxed position one-handedly and allows optimal adjustment to different sized sampling vessels.

It is also easy to install a sterile-grade filter Sartopore® 2 150 capsule with 0.2 µm pore size for guaranteed sterile and particulate-free water dispensing.

Order Number Description

| | |
|-------------|--|
| H2Opro-ADM1 | arium® Display Mounting Kit, height-adjustable, for arium® Built-In systems, qty. 1 unit |
|-------------|--|

Technical Specifications

Materials

| | |
|-------|--------------------------|
| Stand | Aluminum (gray anodized) |
|-------|--------------------------|

| | |
|-------------------------------|-----------------------|
| Dimensions [W × H × D] | 22.0 × 59.5 × 25.5 cm |
|-------------------------------|-----------------------|

| | |
|---------------|---------|
| Weight | 5.60 kg |
|---------------|---------|

Intended use for arium® built-in units (D-version):

arium® comfort I and comfort II
 arium® pro DI, pro UF, pro UV and pro VF

arium® Multifunction Stand

All menu functions directly at the dispensing port



- Visual quality control directly at the water-dispensing port
- System control directly at the work place
- Optimal customization to the variously sized sampling vessels
- Water dispensing using the slider
- Radius extends up to 2.5 meters
- Sterile final filters connectable

Description

The multifunction stand combines the convenience of a display mounting stand and the flexibility of a remote dispense gun. With these components integrated all into one unit, the multifunction stand enables pure water to be dispensed on demand in the different quantities needed.

Pure water can be dispensed in a number of ways, ranging from volume-controlled removal to time-controlled dispensing or manual removal. Whichever the user's application, the combination dispensing unit set up as a stationary unit or used as a portable device offers the user the best option for dispensing. Moreover, the user can check the downstream pure water quality and control the lab water system directly at the dispensing point.

As the stand can be adjusted by up to a height of 70 cm, or more than 2 ft., and the tube guide can be extended by up to 2.5 m,

or more than 8 ft., the user's working radius can be optimally adapted to his or her specific requirements.

For dispensing pure water that is guaranteed to be sterile and free of particles, a sterile final filter (Sartopore® 2 150 Capsule) with a 0.2 µm pore size can be easily connected to the point-of-use outlet.

Technical Specifications

Materials

| | |
|-------|-----------------------------|
| Stand | Aluminum (gray anodized) |
|-------|-----------------------------|

| | |
|-------------------------------|-----------------------|
| Dimensions [W × H × D] | 22.0 × 59.5 × 25.5 cm |
|-------------------------------|-----------------------|

| | |
|---------------|---------|
| Weight | 5.60 kg |
|---------------|---------|

Intended use for arium® built-in units (D-version):

arium® comfort I and comfort II
arium® pro DI, pro UF, pro UV and pro VF

| Order Number | Description |
|--------------|-------------|
|--------------|-------------|

| | |
|---------|---|
| H20-ADD | arium® Multifunction Stand, display mounting kit with dispense gun, height-adjustable, for arium® Built-In systems. qty. 1 unit |
|---------|---|

arium® Foot Switch

More convenient pure water dispensing



- Water dispensing at a press of the foot
- Ideally suited for laminar-flow and clean rooms, minimize the risk of contamination
- Comfortable fatigue-free switching thanks to low height

Description

Easy-to-connect foot switch for starting and stopping the water dispensing. The rugged foot switch frees up both hands for other tasks, such as changing vessels, and minimizes the risk of contamination in the cleanroom.

Technical Specifications

| | |
|-----------------|-------------------------------|
| 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 |
|--------------|-----------------------------|

| | |
|-----------|---------------------|
| Connector | Phoenix plug, 2-pin |
|-----------|---------------------|

Intended Use

arium® comfort I and comfort II
arium® pro DI, pro UF, pro UV and pro VF

| Order Number | Description |
|--------------|-------------|
|--------------|-------------|

| | |
|----------|---------------------------------|
| H20-AFS1 | arium® Foot Switch, qty. 1 unit |
|----------|---------------------------------|

arium® Sterile Filter

Sterile and Particle-free Water Dispensing



- Excellent service lifetime and flow rate
- Integrity tested
- Validated acc. to HIMA and ASTM F-838-05
- Meets WFI quality standards acc. to USP incl. USP plastic class VI test
- Manufacture acc. to DIN ISO 9001
- Easy to install
- Automatic venting
- Certified quality

Description

The arium® Sterile Filter (Sartopore® 2 150) is a sterile, ready-to-use membrane filter capsule for the most stringent requirements. Sartopore® 2 150 membrane filter capsules contain a hydrophilic, heterogeneous polyethersulfone double membrane. It enables an excellent service life and output. The capsule is attached, by a quick connector, at the final position and reliably removes all particles and micro-organisms in the last water purification step. A hydrophobic PTFE membrane at the farthest point „upstream“ allows for easy and clean venting of the capsule.

All pleated Sartopore® 2 membrane filter units are validated as sterile filters for biopharmaceutical applications according to the HIMA and ASTM F-838-05 guidelines (documentation available). During the manufacturing process, every unit is tested for integrity in order to meet the highest quality standards and safety regulations.

| Order Number | Description |
|--------------|-------------|
|--------------|-------------|

| | |
|------------------|---|
| 5441307H4--CE--B | arium® Sterile Filter (Sterile-grade Sartopore® 2 150 capsules), 0.2 µm pore size, qty. 5 units |
|------------------|---|

Technical Specifications

Materials

| | |
|-------------------------------|--------------------------------------|
| Membranes | Asym. Polyethersulfone |
| Filling bell | Polycarbonate |
| Other plastics | Polypropylene |
| Pore size | 0.45 µm + 0.2 µm |
| Filtration area | 0.015 m ² |
| Input and output | 1/4" plug connection |
| 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 |

Intended Use

On Dispense Guns and Display-Dispense Unit for system type:
arium® comfort I and comfort II
arium® pro, pro DI, pro UF, pro UV and pro VF
arium® 611
arium® bagtank Dispense Gun
arium® Dispense Gun

arium® comfort Pre-Treatment Cartridge

Reliable protection of the comfort RO modules



- Fast and effective adsorption of impurities through high-grade activated carbon
- A highly efficiently catalyst removes 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 the pre-treatment. It highly efficiently removes free chlorine and, unlike pure activated carbon, does so even at low temperatures and/or high pH. In addition to preventing deposits from forming, the catalyst diminishes fouling processes and inhibits microbiological growth.

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

| Order Number | Description |
|--------------|-------------|
|--------------|-------------|

| | |
|---------|--|
| H20-CPF | arium® comfort Pre-Treatment Cartridge, qty. 2 units |
|---------|--|

Technical Specifications

Materials

| | |
|-------------------------|--|
| Housing | high-grade polypropylene |
| Cleaning media | Spherical catalytic effective activated carbon |
| Dimensions [W×H×D] | 18×26×11 cm |
| Operating weight | 3.5 kg |
| Feed water requirements | see "Technical specifications" page 2 |

Intended Use

arium® comfort I and comfort II

arium® Printer

GMP Data logging make easy



- Acquisition and documentation of current measurement data

Description

Current measurements can be output to the printer via an RS-232 interface to support qualification and documentation tasks.

Technical Specifications

Dimensions [W×H×D] 21,5×7,8×15,5 cm

Intended Use

arium® comfort I and comfort II
arium® pro DI, pro UF, pro UV and pro VF
arium® 611, 612 and 613

| Order Number | Description |
|--------------|-----------------------------|
| 611APR1 | arium® Printer, qty. 1 unit |

arium® comfort Kit

Deionization cartridge featuring top-down technology



- High performance capacity thanks to efficient ion-replacement resins
- Fast and effective adsorption of impurities through high-grade activated carbon
- Optimized flow progression, prevents separation of the resin mixed-bed
- Patented connection process simplifies the 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. Such consistently high water quality is a guarantee for optimal reproducibility of your results.

Optimized filling materials, such as highly effective activated carbon coupled with highly efficient ion-replacement 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

Materials

| | |
|--|---|
| Housing | high-grade polypropylene |
| Mounting screws | stainless steel |
| Cleaning media | spherical catalytic effective activated carbon ultrapure, semiconductor-grade mixed bed ion exchange resin |
| Further data for product water quality | see "Technical specifications" page 2 |

Intended Use

arium® comfort I and comfort II

| Order Number | Description |
|--------------|---------------------------------|
| H20-C-PACK | arium® comfort Kit, qty. 1 unit |

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 contain a low-energy reverse osmosis membrane in a polypropylene housing. The housing has connections for feed water, permeate (product water) and concentrate (waste water). The RO Modules typically enable high recovery rates. This optimize the water consumption while still retaining at least up to 98% of the ions. 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 allows for the immediate dispensing of high quality water.

Technical Specifications

Materialien

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

Dimension of each Module

| | |
|----------|----------|
| Height | 30.8 cm |
| Diameter | 7.8 cm |
| Weight | 0.468 kg |

| | |
|-----------------------|---------------------------------------|
| Product water quality | see "Technical specifications" page 2 |
|-----------------------|---------------------------------------|

Intended Use

System type:
arium® comfort I
arium® advance RO
arium® 61316 and 61215

Order Number

Description

| | |
|---------------|---------------------------------|
| 613CPM4-----V | arium® RO Modules, qty. 2 units |
|---------------|---------------------------------|

arium® UV Lamp (185 | 254 nm)

Ultrapure water, free of TOC



- Horizontal installation, optimize temperature gradient
- Effectively destroys organic compounds
- Reduces microbiological growth
- 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), effectively preventing microbiological growth. Organic compounds oxidize at 185 nm, whereas 254 nm prevents microbiological growth.

Technical Specifications

| | |
|---------------------------|--------------|
| Material | quartz glass |
| TOC-content product water | ≤ 2 ppb |

Intended Use

arium® comfort I and comfort II (UV & TOC version)
arium® pro UV and pro VF
arium® 611 UV and VF

Order Number

Description

| | |
|---------|--|
| 611CEL1 | arium® UV Lamp (185 254 nm), qty. 1 unit |
|---------|--|

arium® RO Module Cleaning Set

Maximum Service Life of the RO Module



- Effective removal of scaling and metal fouling
- Elimination of organic compounds
- Dispersion of colloids
- Stable pH values
- Gentle on materials

Description

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

The alkaline substance contains non-foaming tensides that dissolve organic compounds and disperse colloids. The tensides do not remain on the membrane surface and can be quickly removed. The cleaning efficiency depends on the pH value that can be safely maintained over a wide temperature range by the contained buffer substances.

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

Technical Specifications

Ingredients

| | |
|------------------|--------------------------------------|
| Alkaline cleaner | HEDTA, ethanolamine, triethanolamine |
| Acidic cleaner | HEDTA, phosphoric acid, citric acid |

Intended Use

System type:
arium® comfort I and comfort II
arium® advance RO and advance EDI
arium® 612 and 613

Order Number

Description

| | |
|---------|--|
| H2O-CCS | arium® RO Module Cleaning Set, qty. 1 unit |
|---------|--|

arium® Water Guard

Early Detection of Leakages Protects the Laboratory



- Highly sensitive optical sensor
- Audiovisual alarm signals
- Automatic water-stop in case of leakage
- High-grade material, non-corrosive
- Easy to install
- Integrated wall mounting bracket for magnetic 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 leakage 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. The sensitive, optical sensors and high-grade materials mean that the arium® water guard is perfect for all ultrapure and pure water systems.

Technical Specifications

Sensor Dimensions

| | |
|--------------|--------|
| Diameter | 5 cm |
| Height | 2.5 cm |
| Cable length | 2 m |

Tubing Connections

| | |
|--------------|--------------------------|
| Input | 3/8" plug connection |
| Output | 3/8" plug connection |
| Power supply | 100 – 240 VAC 50 – 60 Hz |

Intended Use

System type:
arium® comfort I and comfort II
arium® pro, pro DI, pro UF, pro UV and pro VF
arium® advance RO and EDI
arium® 611, 612 and 613

Order Number

Description

| | |
|---------|---------------------------------|
| 610AWG1 | arium® Water Guard, qty. 1 unit |
|---------|---------------------------------|

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