



Polishing systems



ULTRAPURE WATER SYSTEMS

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Description

Onsite+ and Connect series compact water purification systems produce ultrapure water for laboratory needs. Quality of water meets requirements for Grade 1 water of ISO 3696 standard and corresponding ASTM and CLSI standards.

Onsite+ and Connect are polishing water purification systems. Therefore, feed water must be pre-treated by reverse osmosis or distillation. Systems are recommended for laboratories with average daily consumption of water within 5-10 litres.

Adrona polishing water purification systems are available in the following configurations:

- **Onsite+ Trace** (P/N CB-1901) and **Connect Trace** (P/N CP-1701) produce water essentially free of dissolved organic and inorganic contaminants. This type of water is used for analytical chemistry methods including but not limited to atomic absorption spectrometry, plasma optical emission spectrometry and other inorganic trace analysis methods.
- **Onsite+ HPLC** (P/N CB-1903) and **Connect HPLC** (P/N CP-1703) provide purified water quality meeting requirements of liquid chromatography methods. Water is free of dissolved contaminants and inorganic compounds. Total Organic Carbon (TOC) concentration is below 2 ppb. Water produced by Onsite+ HPLC and Connect HPLC is intended for organic analysis methods such as liquid chromatography, gas chromatography, mass spectrometry as well as some methods of molecular biology.

- **Onsite+ Bio** (P/N CB-1905) and **Connect Bio** (P/N CP-1705) produce water essentially free of enzymes, such as RNase and DNase, endotoxins, organic and inorganic contaminants. The list of applications includes molecular biology, cell culture and other methods sensitive to RNase and endotoxins.

Onsite+ series systems contain an embedded tank that has to be filled with pre-treated water before operation. Pre-treated water can be obtained by distillation or reverse osmosis. For user convenience the Onsite+ system comes with additional 5L carboy. The carboy has a stopcock and handle for easy transportation of water from water still to the Onsite+ unit.

Connect series systems should be connected to a water pre-treatment unit or a distilled water distribution system in a lab. The pre-treatment system should maintain water pressure of no less than 1 bar.

Features

- Adrona Onsite+ and Adrona Connect systems produce ultrapure water for most demanding and sensitive biological and chemical analytical methods. The applications include but are not limited to inorganic trace analysis, high-performance and ultra high performance liquid chromatography, cell culture, molecular biology. Ultrapure water has resistivity of 18.2 MOhm*cm (0.055 uS/cm), thus exceeding requirements of all applicable purified water standards (ISO 3696 Grade 1, ASTM Type 1, CLSI Type 1, EP, USP).

- Embedded recirculation loop ensures stable premium water quality and enables virtual elimination of Total Organic Carbon (TOC). Integrated TOC monitor allows user to control concentration of organics in water.

- Adrona Onsite+ and Adrona Connect systems are equipped with color graphic LCD display. The 16-bit color display provides clear readout of water quality, system component status, performance of the polishing module. System component status is reflected on the display in an intuitive color pattern (Green/Yellow/Red).

- Performance of the polishing module is constantly monitored. Monitoring algorithm enables cutting running costs, as replacement of the polishing module is requested only when its life is close to the end.

- Adrona water purification systems control quality of water with conductivity sensor and the TOC monitor.

- Onsite+ and Connect system enable user to carry out validation of water quality sensors right on the site.



- Adrona water purification systems have a volumetric dispenser, which enables the user to set accurate dispensing volume for each dispense cycle. The dispense volume can be set either from the keyboard or by using “teaching” mode. In “teaching” mode user uses “Dispense On/OFF” button to do the first dispense cycle manually. Afterwards, the system will dispense exactly the same volume each time the user presses the dispense button again.
- Onsite and Connect systems have all necessary safety functions. The systems are installed by user and all cartridges and filters are user replaceable. No tools are needed.
- Adrona water purification systems can be installed either on a laboratory bench or on a wall. Wall-mount installation allows saving valuable laboratory space.
- The first set of the consumables is included into the delivery.

Ordering Information

Model	Part number
Onsite+ Trace	CB-1901
Onsite+ HPLC	CB-1903
Onsite+ Bio	CB-1905
Connect Trace	CB-1701
Connect HPLC	CB-1703
Connect Bio	CB-1705
Water quality sensor validation kit	10913

Applications

Application	Onsite+ or Connect configuration		
	Trace	HPLC	Bio
Reagent preparation	●	●	●
Ion chromatography	●	●	●
Plasma mass-spectrometry (ICP-MS)	●	●	●
Atomic absorption spectrophotometry	●	●	●
Plasma spectrophotometry (ICP-OES)	●	●	●
High Performance Liquid Chromatography	–	●	●
Gas chromatography	–	●	●
Total Organic Carbon measurement	–	●	●
Flow cytometry	–	–	●
Cell culture	–	–	●
Molecular biology	–	–	●

Technical parameters

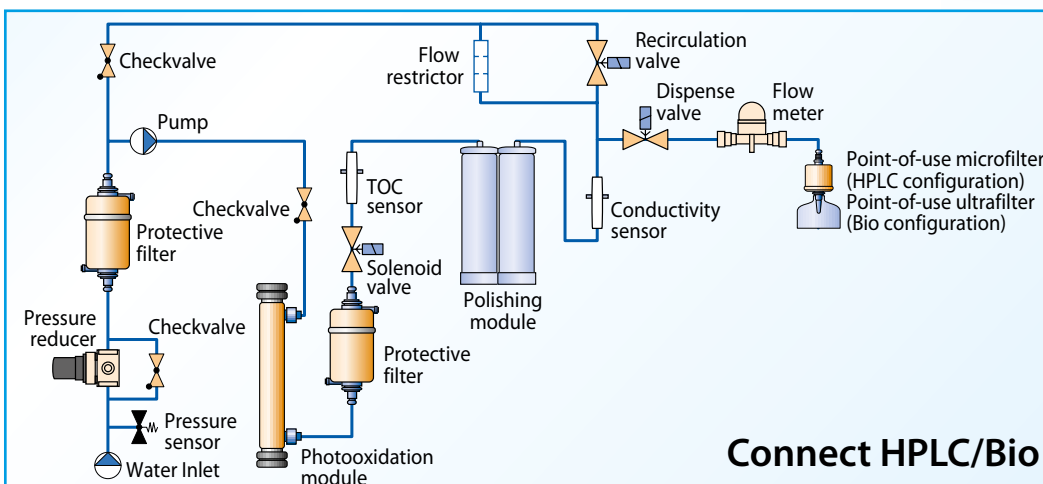
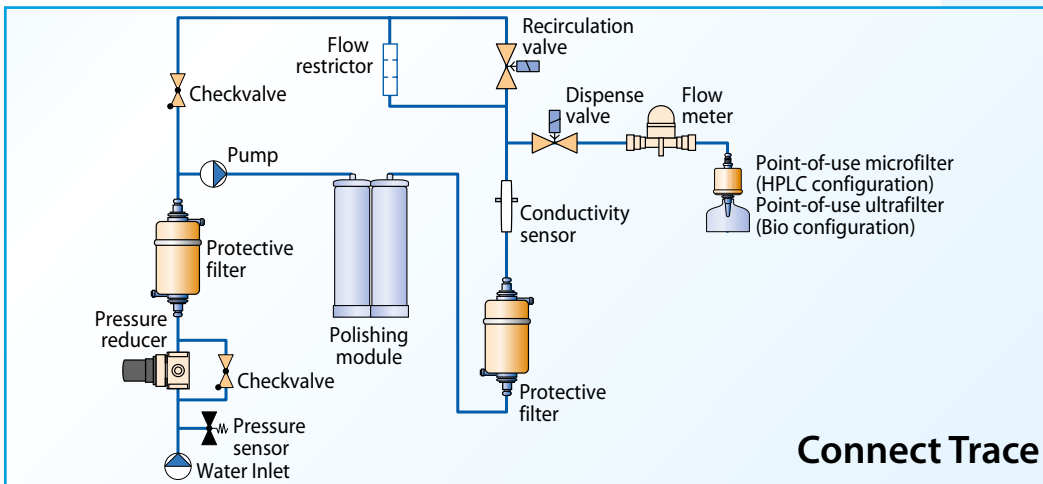
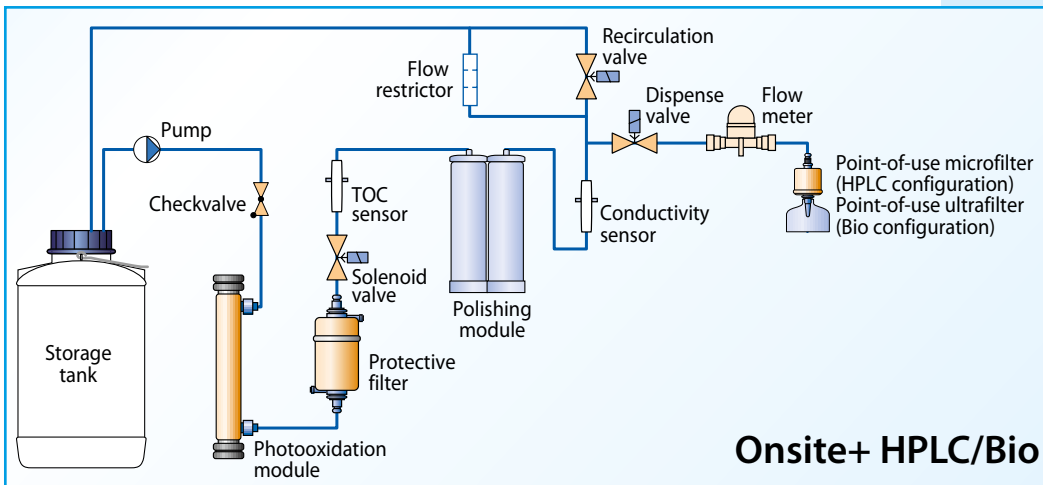
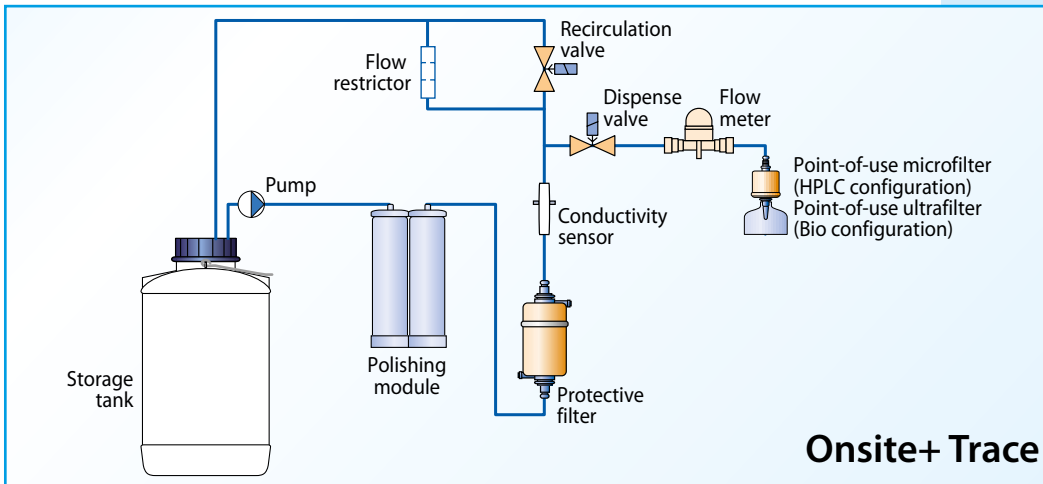
Ultrapure water parameters	Onsite+/Connect system configuration		
	Trace	HPLC	Bio
Ultrapure water resistivity	18.2 MΩ x cm	18.2 MΩ x cm	18.2 MΩ x cm
Ultrapure water conductivity	0.055 μS/cm	0.055 μS/cm	0.055 μS/cm
Total Organic Carbon (TOC) level	<10 ppb	<2 ppb	<2 ppb
RNase	–	–	<0.01 ng/mL
DNase	–	–	<4 pg/μL
Bacteria	< 1 CFU/mL	< 1 CFU/mL	<1 CFU/mL
Endotoxins	<0.15 EU/mL	<0.15 EU/mL	<0.001 EU/mL
Particles > 0.22 μm	<1/ mL	<1/ mL	<1/ mL
Polishing module life*	1 m ³	1 m ³	1 m ³
Dimensions (WxDxH), cm	50x40x60	50x40x60	50x40x60
Feed water conductivity	<30 μS/cm	<30 μS/cm	<30 μS/cm

* Polishing module life depends on feed water quality.

Consumables

Part number	Description	Replacement interval	Comments
10029	Polishing module	When indicated on the display or water conductivity is constantly > 0.1 uS/cm during recirculation	
10018	UV photooxidation bulb	When required (on average every 3 years)	Only for „Bio“ and „HPLC“
10012	Point-of-use microfilter	Every 6–12 months	Only for „Trace“ and „HPLC“
10120	Point-of-use ultrafilter	Every 6–12 months	Only for „Bio“

Schematics



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Connect HPLC/Bio

