

Q-FRONT

Adrona's products Q-Front 5/10 are ultrapure water systems in which water deionization and polishing are provided by one ion exchange cartridge. It simplifies servicing of the system and decreases the unit cost.

RO permeate water is stored in the tank and delivered to polishing loop by the pump.

Grade 1 water can be dispensed by attached dispenser. It includes volumetric dispense function. All well-known Grade 1 systems configurations - Trace, HPLC and Bio are available.



DESCRIPTION

| | Q-Front Trace | Q-Front HPLC | Q-Front Bio |
|---------------------------------|--|--|---|
| Q-Front water type | <ul style="list-style-type: none"> ultrapure water (Grade 1) RO water | <ul style="list-style-type: none"> ultrapure water (Grade 1) RO water | <ul style="list-style-type: none"> ultrapure water (Grade 1) RO water |
| Application | <ul style="list-style-type: none"> atomic absorption spectrometry plasma optical emission spectrometry other inorganic trace analysis | <ul style="list-style-type: none"> chromatography mass spectrometry microbiology molecular biology | <ul style="list-style-type: none"> highly sensitive molecular biology cell culture other methods sensitive to RNase and endotoxins biology applications |
| Display | colour graphic LCD display | | |
| Water quality sensor | • | • | • |
| TOC Monitor | - | • | • |
| Volumetric dispense | • | • | • |
| Dispenser | flexible dispenser attached | | |
| Connection to Flow point | • | • | • |
| Storage tank | storage tank required, but not included | | |
| Installation | installable on a laboratory bench | | |

CONSUMABLES

| Part number | Description | Replacement criteria | Comments |
|-------------|-------------------------------------|---|----------------------------------|
| 10410 | Replacement pre-filter | If the filters are clogged or every 6 months | |
| 10030 | "Polishing+" module | Grade 1 water conductivity is > 0.1 µm/cm constantly or every 12 months | |
| 10017 | Sterilization UV bulb | 2 years on average | "Bio" configuration |
| 10018 | Photooxidation UV bulb | 2 years on average | "HPLC" and "Bio" configuration |
| 10012 | Replacement 0.22 µm dispense filter | Every 6–12 months | "Trace" and "HPLC" configuration |
| 10120 | Replacement ultrafilter | Every 3–6 months | "Bio" configuration |



ORDERING INFORMATION

| Model | Part number |
|------------------|-------------|
| Q-Front 5 Trace | QF-3101 |
| Q-Front 10 Trace | QF-3201 |
| Q-Front 5 HPLC | QF-3103 |
| Q-Front 10 HPLC | QF-3203 |
| Q-Front 5 Bio | QF-3105 |
| Q-Front 10 Bio | QF-3205 |

SPECIFICATIONS

| | Q-Front system configuration | | |
|-------------------------------------|------------------------------|--------------|---------------|
| | Trace | HPLC | Bio |
| Grade 1 water resistivity at 25 °C | 18.2 MΩ x cm | 18.2 MΩ x cm | 18.2 MΩ x cm |
| Grade 1 water conductivity at 25 °C | 0.055 μS/cm | 0.055 μS/cm | 0.055 μS/cm |
| TDS rejection rate | ≥97% | ≥97% | ≥97% |
| Total Organic Carbon (TOC) level | <10 ppb | <5 ppb* | <5 ppb* |
| RNase | - | - | <0.01 ng/mL |
| DNase | - | - | <4 pg/μL |
| Bacteria | <0.01 CFU/mL | <0.01 CFU/mL | <0.01 CFU/mL |
| Endotoxins | <0.15 EU /mL | <0.15 EU /mL | <0.001 EU /mL |
| Particles >0.22 μm | <1/mL | <1/mL | <0.05/ per mL |
| Feed water pressure | 0.4 - 6 bar | 0.4 - 6 bar | 0.4 - 6 bar |
| Data interface | RS 232 | RS 232 | RS 232 |
| Dimensions (WxDxH), cm | 35x39x54 | 35x39x54 | 35x39x54 |
| System weight, kg | 25 | 26 | 27 |
| Operation weight, kg | 28 | 29 | 30 |

* In appropriate operating conditions <2 ppb, otherwise normally <5 ppb.

FLOW DIAGRAM

