

# SOFiA

## Autonomous Filtration Operational System

*Water sampler for the field*

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**SOFiA is a handy peristaltic pump coupled with a filtration system for fast and standardized sampling of surface water. The device is lightweight, portable, rugged, easy to use, water-resistant and requires minimal maintenance.**



Coming with a 2.5h-autonomy battery and a carrying case, it is usable for field work in a wide range of environments: rivers, lake, ponds, costal and sea waters, directly in water or from banks, platforms, boats etc.

●●● **Key-Benefits of coupled sampling/filtration**

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|---|---|
| Standardization of water volumes        | > higher monitoring data quality          |
| Water samples concentrated onto filters | > reduction volume/cost of transportation |
| Adaptability of filters                 | > multiple applications                   |

Filters	Applications
PC, PVDF, cellulose	Molecular biology, metagenomics, transcriptomics, proteomics
Glass microfiber G/FC	Analyses of chemicals, toxins, pigments etc
Mixed cellulose ester	Cell culture – colony counting
No filter	Cell enumeration

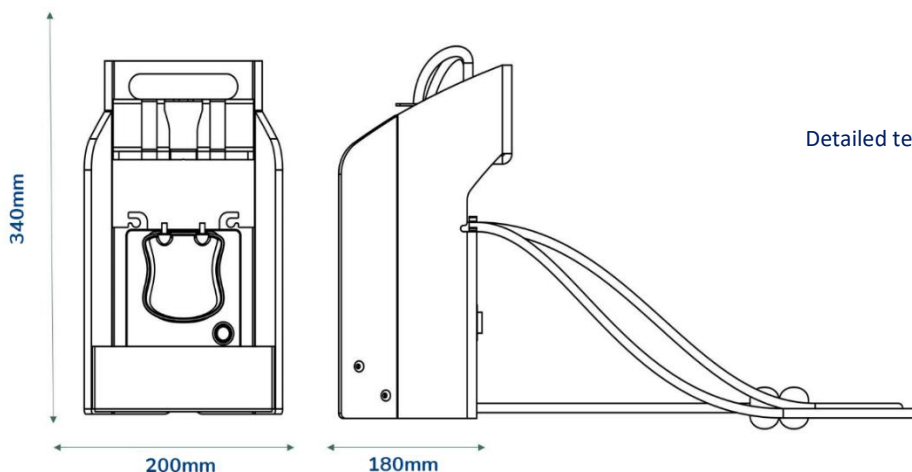
●●● **Technical information**

- Medical grade tubing/pipes
- Battery: 2.5h autonomy
- Flow: 1L/min
- Outlet flow pressure: 40psi
- Weight: 2.2 kg

●●● **Accessories**

- Floats, inlet filter
- Battery charger and plug
- Filter-holders for Ø 47-mm filters
- Robust carrying case

●●● **Price: from 1,200€ (excl. tax.)** - also available for rental.



Detailed technical information on next page →

Performance data		Unit	
Flow rate		ml/min	1000 +/-8%
Flow direction			CW/CCW Reversible
Pump head material			Transparent PC
Output fluid pressure		psi	40 min
Recommended loading fluid pressure		psi	18
Input resistant pressure		psi	2.0 min
Vacuum suction		Kpa	30 min
Current @ rate flow		A	1.0 max
Operation temperature (environment)		°C	-10 ~ +50
Storage temperature (environment)		°C	-10 ~ +70
Loading noise (testing distance 30 cm)		dB	77 max
Net weight		kg	2.2
Outline dimension		mm	340(H) x 200 (L) x 180 (W)
Electrical data			
Battery capacity		mA	2600
Battery voltage		V	14.4
Charging voltage		V	16.8 ± 0.2
Charging current		A	1.3
Charging method			CC-CV
Accessories (included)			
Storage case material			Orange PC
Storage case dimension		mm	430(L) x 300(W) x 220 (H)
External tubes material			Transparent FDA Silicon
External tube diameter (internal/external)		mm	6/10
External tube length		mm	100
Accessories (in full-option version only)			
In-line filter-holder number and material			2x Transparent PC
In-line filter-holder diameter		mm	50
Filter-holder sterilization		°C	121 (Autoclave)
External tube length		mm	2000
Float Number and material			2x White/Orange, PC
Float internal/external diameter		mm	12/75

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**Microbia Environnement** is a biotechnology company expert in environmental microbiology that develops innovative molecular biology tools (genetic biosensors) for the early detection of toxigenic microalgae and cyanobacteria responsible of harmful algal blooms in freshwater, brackish and marine ecosystems. As water sampling is crucial for the deployment of such powerful technologies, the SOFiA system has been designed to optimize the collection of microorganisms and their genetic material from environmental water. Beyond that specific use, the filtering system of SOFiA is easily adaptable to any water quality analytic workflows.