



## Bühler 2000 Portable automatic water sampler

**Product #:** BU2000.XX.XXXXXX  
**AED Price:** Contact Hach

### Accurate sampling for precise analysis

Portable water sampler using pressure-vacuum technology. Combines small dimensions by offering the 24x1 L bottle option for glass as well as plastic bottles or 25 L composite PE bottle.

Enables the option of 24 x 1 L or 1 x 25 L PE sample bottles, respectively 24x1 L or 1x20 L glass sample bottles, in combination with an active cooled sampler base! This is especially interesting for sampling in accordance to local regulation (24 x hourly mixed sample/daily mixed sample). Cleaning efforts are reduced to a minimum due to the new designed vat sample distributor and the standard round sample bottles.

The sampler offers two cooling options for ensuring a sample storage at 4°C: passive with ice packs or active with an integrated cooling machine including autarkic temperature control.

The pressure-vacuum sampler is ISO 5667 compliant. To avoid cross contamination, the system is purged before and after each sample is taken.

The compact, weatherproof housing made of PE plastic ensures failure-free operation over many years and often changing installation locations. Even in extremely corrosive applications.

All programming features of stationary sampler products are available.

### Various bottle options permit flexible application: up to 24x1 L standard round sample bottles with active cooling!

Only Bühler samplers enable the option of 24 x 1 litre or 1 x 25 litre PE sample bottles, respectively 24 x 1 litre or 1 x 20 litre glass sample bottles, in combination with an active cooled sampler base! This is especially interesting for sampling in accordance to local regulation (24 x hourly mixed sample/daily mixed sample).

### Lightweight, corrosion-free PE housing

The compact, weatherproof housing made of PE plastic ensures failure-free operation over many years and often changing installation locations. Even in extremely corrosive applications.

### Always accurate sampling for correct analysis based on active or passive cooling

BÜHLER 2000 offers two cooling options for ensuring a sample storage at 4°C:

- Passive with ice packs - no dealing with chemicals, which need to be refreshed after each use

or

- Active with an integrated cooling machine including autarkic temperature control - for accurate temperature controlled sample conservation

### Cost effective and low maintenance

No consumables are needed because the sampler functions according to the pressure-vacuum principle.

It is not necessary to change any pump tubing.

## Easy to clean sample container and distributor

Cleaning efforts are reduced to a minimum due to the new designed vat sample distributor and the standard round sample bottles.

---

## Specifications

Accessories:	Charger, folding transport truck, ice packs, intake device and much more
Ambient temperature:	0 - 43 °C
Bottle filling time:	1 min to 999 hours 59 min
Certifications:	CE, Sampling according to ISO 5667-2/3-10
Communication:	Optional: PC via Software  Further communication options on request.
Controller:	Microprocessor control, Sleep-Mode (<5 mA), power supply 8-16 V, foil keyboard (with keys 0 - 9, ESC, ENT, cursor), graphical display (128 x 64 Pixel), backlit
Cooling principle:	Passive or active
Cooling system:	Insulated sample compartment (40 mm insulating layer)  Option: ice packs (200 mm x 10 mm x 8 mm) for bottle option 16 x 1 L  Option: compressor cooling (12 V/115 V/230 V);  self-contained, controlled cooling with 2 settings, independent of the programmable controller, temperature in sample compartment: 4 °C (adjustable from 0.0 - 9.9 °C)
Data storage:	3000 entries, non-volatile data memory; storage of sampling and malfunction data like sample extractions, bottle changes, messages, external signals
Dimensions:	Isobox, passive cooling: 534 mm x 510 mm x 430 mm (H x W x D)
Dosing system (sample):	Standard vacuum system  Sample volume selectable: 20 to 350mL
External input (analogue):	1 x analogue: mA, optional 0 to 20 mA, cut-off voltage 3.3 V (optical coupler)
External input (digital):	5 x digital: flow, event, 3 x free to define / programmable (depending on sampler configuration)
External output (digital):	Max. 8 x digital: free to define, programmable (depending on sampler configuration)
Housing details:	Sampler base: double-walled PE plastic  Cover: single-walled PE plastic  Cover can easily be lifted for maintenance or status check, protects all components against dirt and humidity.  Suction inlet at right-hand side of housing.
Housing material:	PE
Housing type:	Portable
Includes:	The sampler comes ready to operate, equipped with dosing vessel (glass), double head membrane pump for greater suction velocity, passive cooled sample compartment, distributor system, sampler base passive cooled. Battery powered, rechargeable battery included.
Inputs:	1 x analogue: 0/4-20 mA  2 x digital (flow, event), Impulse length 60 ms, switching level 7-24 V, max. working resistance 500 Ohm, max. length of signal cable 30 m
Interface:	Mini-USB
Languages user interface:	Multi-language, selectable
Manual sampling:	Possible at any time, without interfering with the programme sequence.

Operatin conditions:	Pressureless
Overfilling protection:	1 to 999 samples / bottle: adjustable
Pause Mode:	Pause of sampling programme at any time.
Power requirements (Voltage):	12 V DC, 115/230 V AC
Power supply:	<p>Sampler head: 12 V/10 Ah lead storage battery (maintenance-free, leak proof);</p> <p>115 V or 230 V operation by means of battery charger in buffer mode. Range 11-14 V, power consumption max. 30 W</p> <p>With optional active sample cooling: according to ambient conditions approx. 50 W</p>
Program protection:	Up to 5 years after voltage loss
Program Start Options:	Immediately; at a certain time; by an external signal
Program Stop Options:	End of sampling program after one program run; continuous operation or x- runs, and a certain date / time
Programs:	12 freely programmable user programs, with function to link programs
Sample container:	<p>Plastic: 1 x 10 L, 1 x 25 L, 4 x 5 L, 16 x 1 L (in combination with ice packs), 24 x 1.0 L</p> <p>Glass: 1 x 17 L, 24 x 1.0 L</p>
Sample distributor:	Robust round distributor (vat design)
Sample interval:	1 min to 99 h 59 min in minute steps
Sample temperature:	0 - 40 °C
Sample transport velocity:	>0.5 m/s at suction height up to at least 8 m (at 1013 hPa); pump performance can be adjusted electronically
Sample volume:	20 - 350 mL freely adjustable
Sample volume accuracy:	Standard Vacuum System: < 2.5 % or $\pm$ 3 mL
Sampler type:	Portable
Sampling mode:	Time-related, flow-proportional, constant time/ variable volume (CTVV), event-related, manual sample extraction
Sampling Principle:	Pressure-vacuum principle
Status messages:	All relevant messages and sample history are stored (such like sampling, programme start, programme end, sample missed)
Suction Height:	Max. 6 m (at 1013 hPa and stagnant medium), optional 8 m
Suction hose inner diameter (mm):	10 mm
Suction Hose Length:	5 m (standard); max. hose length 30 m
Suction Hose Material:	PVC
Type of distributor:	Robust round distributor (vat design)
Warranty:	24 months
Weight:	<p>Sampler head: approx. 10 kg</p> <p>Isobox, passive cooling (24 x 1 L): approx. 11 kg</p> <p>Isobox, active cooling (24 x 1 L): approx. 25 kg</p>
Wetted Materials:	PC, PVC, Silicone, PS, PE, EPDM (optional: metering vessel glass Duran50), sinker weight SS304