WS Porti Mobile Sampler

Portable Automated Sampling

The WS Porti is a battery-operated sampler for remote locations, combining portability with renowned WaterSam® quality. Thanks to the modular design, transportation is made easy and various sample bottle storage options can be used.

ADVANTAGES AT A GLANCE

- Built-in battery allows use away from mains power
- Up to 3 weeks battery run time thanks to sleep mode and efficient technology
- Robust and durable stainless steel sampler housing
- Standard-equipped with quality vacuum pump system and 12 mm suction line for reliable sampling of a variety of media
- Optional compressor refrigeration with the ability to connect to vehicle socket for an uninterrupted cold chain during transport
- Possibility of connection to various water quality sensors
- An additional transport box enables quick replacement of full bottles

Made in Germany

TECHNICAL DATA

GENERAL

Portable sampler for indoor and outdoor applications

Norms	CE	
Dimensions (H x W x D)	Porti:	430 x 415 x 290 mm
	Box 1 / 12 :	354 x 460 x 370 mm
	Box 24:	310 x 566 x 350 mm
	Box 1T/ 12T:	430 x 692 x 398 mm
	Box 24T:	472 x 957 x 530 mm
Weight	Porti:	approx. 17.5 kg (incl. battery)
	Box 1 / 12 :	approx. 4.7 kg
	Box 24:	approx. 5.5 kg
	Box 1T/ 12T:	approx. 18.5 kg
	Box 24T:	approx. 30.0 kg
Power Requirements	Mains power: 110 - 240 V AC; 50/60 Hz Battery: 24 V DC	

SAMPLING

Sampling System	Standard: VAC vacuum pump system for sampling under pressure-free conditions Alternative systems: <u>For sampling under pressure-free conditions:</u> VAR-C, peristaltic pump
Sampling Modes	All sampling systems from WaterSam can take time-, flow (CVVT)- and event-proportional samples For flow-proportional (CTVV) sampling, the following systems are suitable: VAR-C, peristaltic pump
Sample Volume	12-200 ml; multiple-shot metering possible
Metering Glass	DURAN 50 borosilicate glass; dishwasher-safe, resistant to acid, alkali, temperature fluctuations
Pump	24 V DC; -0,7 to 1 bar; 7 m max. lift height; 9 l/min free flow optional: VacuPress for lift heights up to 13 m
Intake Hose	12 mm ID PVC (optional: 16 mm ID)
Wetted Parts	Borosilicate glass, PE, PVC, stainless steel 304/316Ti, silicone (optional: alternative materials as required)

HOUSING / TEMPERATURE CONTROL

Housing Materials	Sampler housing stainless steel 304 Optional: ▪ Stainless steel 316Ti or 316L ▪ Powder coating (RAL colors)
Environmental	Easy separation of materials
Porti Boxes	Porti 1/12: Polyethylene with polyurethane insulation Porti 24: Polyethylene
Compressor Cooling	12/24 V DC; 6 A with battery monitor (requires external battery) 100-240 V AC; 1.3-0.7 A CFC-free refrigerant R134a
Internal Temperature	Adjustable from -22 °C to +10 °C
Hourly Run Times at	Typical data for 12 V DC / 230 V AC: 12% (power draw Ti=5°C Ta=20°C 7.5 A DC / 0.7 A AC) 22% (power draw Ti=5°C Ta=32°C 7.5 A DC / 0.7 A AC)

DISTRIBUTOR (optional)

Distributor	24 V DC motorized rotary distributor
Bottle synchronization	Automatic

WS Porti 1T - 12T

CONTROLLER

MS3 Controller

With the MS3 controller, WaterSam has set new standards. In addition to comprehensive communications possibilities, the MS3 sets itself apart with its through its user-friendly layout and easy operation.

ADVANTAGES AT A GLANCE

Easy Operation

The large backlit graphic display permits a clear and simple view of menus. The 24 keys make menu navigation very straightforward and easy. In addition to the numerical and navigation keys, there are direct function keys to start, pause and stop selected programs, as well as take a grab sample. This means controller operation remains dependable regardless of precipitation or extreme temperatures; even when using gloves.

Versatile Parameter Settings

All programs can be configured according to the user's needs. Programs can be run simultaneously or in a specific order. If the application demands special considerations, a wide range of system and program parameters can be adjusted without hassle. In order to protect the sampler against unauthorized access, a special code can be set by the operator to limit access to several different menu levels. The levels of protection permit varying degrees of access to specific sampler functions and settings.

Comprehensive Communication

The numerous ports on the controller allow simple communication with the sampler. With a Modbus protocol, the sampler can be integrated into an on-site control system
The USB port can be used to retrieve saved data as well as load software updates. The available webserver allows access to sampler functions and information.
The controller has 4 GB storage space, which can be expanded to 32 GB.
In addition to 4 separate analog inputs and an analog output, the MS3 controller features 16 digital inputs and 16 digital outputs as standard equipment.

Sensor Connection

Intelligent sensors can be connected directly to the MS3, and monitored data can then be stored. This completely eliminates the need for an expensive transmitter.

Energy Efficient

The technologically advanced MS3 has especially low power consumption.
Additionally, portable samplers feature an intelligent sleep mode to further increase efficiency and thereby extend battery life. The sleep mode is activated not only before and after a sampling campaign, but also in between individual samplings.

INNOVATIVE . INTUITIVE. COMMUNICATIVE

MS3 CONTROLLER TECHNICAL DATA

OPERATION

Waterproof keypad with 24 keys, incl. 4 color-coded direct function keys, navigation keys, numerical keypad, 3 flexible-function keys

SOFTWARE & PROGRAMS

Graphic menu;
optional display of various selectable data

Up to 9 programs
(number of programs adjustable), multiple / all programs can be run simultaneously

INTERFACE

RS-232, RS-485, TCP/IP, USB Host, USB Com Port Slave

SOFTWARE UPDATES

via USB flash drive

INPUTS

ANALOG
4 separate analog inputs
0/4-20mA

DIGITAL
16 digital inputs
e.g. for flow, events, external control, start, stop, distributor movement, etc.

OUTPUTS

ANALOG
1 analog output 4-20 mA

DIGITAL
16 digital outputs
e.g. for messages, external control; expandable by request

DATA STORAGE

4 GB, optionally 32 GB or more;

usable for storing internal data (sampling data, quality parameter values, other sampling information) and data from external sources (pH, flow, conductivity sensors, etc.)

COMMUNICATION

Modbus via RS-485 or TCP/IP
Webserver
Optional:
Profibus-DP, Modem

DATA RETRIEVAL

RS-232, RS-485, Modbus
download via USB flash drive / TCP/IP
Optional: via Webserver, Modem or Profibus-DP

NOTE : The MS3 controller is available as a retrofit for your existing WaterSam sampler!

SAMPLE DISTRIBUTION

The WS Porti is compatible with several different bottle storage options, which can easily be switched.
The ability to plug a compressor cooler in to a 12 V DC vehicle socket ensures that samples continue to be kept cool during transport.

Passive / Without Cooling

Composite container (no distributor):

- 6.4 / 10 l PE

Discrete bottles:

- 2 x 5 l PE
- 12 x 1 l PE / 0.9 l glass
- 24 x 1 l PE*/ 0.9 l glass*

Discrete bottles and composite container:

- 5 x 1 l + 1 x 6.4 l PE

*only with Porti 24T

Active Cooling

Composite container (no distributor):

- 10 / 10.4 l PE

Discrete bottles:

- 2 x 4.0 l PE
- 4 x 6.4 l PE*
- 12 x 1.0 l PE / 0.9 l glass
- 24 x 1.0 l PE* / 0.9 l glass*

*only with Porti 24T

TIP

By purchasing a second cooler or transport box, samples can be taken to the lab while the sampler continues to fill another bottle set.

O P T I O N S

We will gladly create a quotation for a sampler especially designed for you and your requirements.
You can profit from our years of experience and technical expertise. All desired options will be included when building your sampler to provide a complete package solution.

You'll be amazed at the possibilities.

HOUSING EQUIPMENT

- Transport cart
- Lockable front cover

Other options available upon request

TECHNICAL EQUIPMENT

- Connection sockets
- Peristaltic pump
- Data logger (for saving sampling data, monitoring data from internal measuring instruments and/or external on-line sensors)

SAMPLING COMPONENTS

- Conforming of materials for the sampling line (intake hose, sampling system, distributor hose, sample bottles) e.g.: PTFE, PVDF, FPM.
- Numerous sample containers with a variety of capacities and materials.
- Positioning armature for intake hose
- Filter basket

C O M M U N I C A T I O N

- GSM modem for remote operation, SMS and program start via mobile telephone, complete access to sampler software via PC / Laptop
- Signal relays (general error alarm, bottle changed, sample taken, program started, program stopped, return of power after power outage)

WaterSam GmbH
Hölzlestr. 42
72336 Balingen
Germany

Q U E S T I O N ?

www.watersam.com

☎
+49 7433 277043 0
🖷
+49 7433 277043 22
✉
info@watersam.de

Q U A L I T Y M A D E I N G E R M A N Y

Technical specifications and misprints subject to change without notice *V2507*