Portable sampler

Fully automatic, portable sampler for discontinuous time, flow (CVVT) and event-proportional [optional: flow-proportional CTVV] sampling according to the vacuum principle.

Modular design with sampler in stainless steel housing SS304 and separate box for sample container.

[optional: 316 Ti and/or powder coating]

Internal battery and charger. Intelligent power saving mode with sleep mode until the program starts and also between the single samples. Battery life with normal sampling in normal operation at least 48 to 144 hours without power saving mode, with power saving mode at least 64 to 744 hours. [optional: Lithium-battery to reduce weight against standard version of approx. 4 kg]

Sample distribution and storage

[Please select desired option:] Without / with passive cooling

- 1 x 6,4 I PE container in transport box with passive cooling
- 1 x 10 I PE container in transport box with passive cooling
- 12 x 1 I PE bottles in transport box with passive cooling
- 12 x 0,9 I glass bottles in transport box with passive cooling
- 24 x 1 I PE bottles in transport box
- 24 x 0,9 I glass bottles in transport

With active compressor refrigeration

Active cooler box with compressor cooling and the possibility of connection to the vehicle's electrical system for continuous cooling during transport

- 1 x 10,4 I PE container in active cooler box with compressor cooling of up to -22°C
- 12 x 1 I PE bottles in active cooler box with compressor cooling of up to -22°C
- 12 x 0.9 I glass bottles in active cooler box with compressor cooling of up to -22°C
- 24 x 1 I PE bottles in active cooler box with compressor cooling of up to -22°C
- 24 x 0,9 I glass bottles in active cooler box with compressor cooling of up to -22°C

Controller

Microprocessor controller with waterproof membrane keyboard and backlit 128 x 128 pixel full graphic display. 24 buttons with numeric keypad, three function buttons below the display for e.g. direct start of programs without pressing any further buttons and cursor buttons. Color coded buttons for start, pause, stop and manual sampling each in a different color.

9 sampling programs, of which several and all programs can be activated and run simultaneously. Each program can be assigned a separate operating mode (time, quantity, event and, if applicable, flow rate). Automatic program repetition and linkage of several / all programs.

Communication: Webserver and Modbus protocol (ASCII, RTU or TCP/IP) Interface: RS-232, RS-485, Ethernet RJ45, USB Host and USB Com Port Slave

Inputs: 4 separate analog input 0/4-20 mA and 16 digital inputs

Outputs: 1 analog output 4-20 mA and 16 digital outputs

4GB internal memory, usable for internal data and connected sensors. Sufficient storage space for the entire sampler lifetime.

Intelligent sensors can be connected without an additional transmitter. Software update by USB flash drive.

Program backup over the entire lifespan of the sampler and copy function for programs.

Sampling System

Pressure-vacuum sampling system for time, flow (CVVT) and event proportional sampling. Metering vessel made of borosilicate glass for single samples from 12 to 200 ml [optional: up to 400 ml]. For sampling under pressure-free conditions.

At least 12 mm internal diameter of the complete sample line (from hose tip to the bottle). [optional: VAR-C sampling system for flow proportional sampling (CTVV)]

Pump / pneumatics

24 V AC pump for lift heights up to 7 m; electric pinch valve without twisting the hose. Adjustable closing force.

[optional:

- Lift height up to 8 m
- Lift height up to 10 m
- Lift height up to 13 m
- Lift height up to 30 m
- High-performance pump: 24 V AC, air performance: 27 l/min, for lift heights up to 8m; electric pinch valve without twisting the hose. Adjustable closing force.]

Intake hose

Fabric-reinforced PVC intake hose with stainless steel tip, 5 m long, di 12 mm [optional: strainer basket]

Technical data, dimensions and weight

Mains power: 110 - 240 V AC; 50/60 Hz

Battery: 24 V DC, 9 Ah

Dimensions and weight sampler (H x W x D): 430 x 415 x 290 mm; approx. 17.5 kg incl. batteries Dimensions and weight transport/ cooler box (H x W x D):

- Box with passive cooling for 1 or 12 bottles: 380 x 480 x 320 mm, approx. 4.5 kg
- Box for 24 bottles: 310 x 566 x 350 mm, ca. 4,5 kg
- Box with active compressor cooling for 1 or 12 bottles: 415 x 710 x 360 mm, approx. 18.5 kg
- Box with active compressor cooling for 24 bottles: 472 x 957 x 530 mm, approx. 30.0 kg

Type: WS Porti

Manufacturer: WaterSam GmbH, Hölzlestraße 42, 72336 Balingen, Germany