

### **Stationary sampler**

Fully automatic, stationary sampler for discontinuous time, flow (CVVT) and event-proportional [optional: flow-proportional CTVV] sampling according to the vacuum principle. All-weather design for in-and outdoor installation.

### **Housing**

Made of double-walled stainless steel 304 with 40 mm insulation and insulated stainless steel roof. Separate panel door with window in front of control unit.  
[optional: 316 Ti and/or powder coating]

Sandwich construction allows for easy separation of housing materials for recycling and disposal.

Housing divided into:

1. Lower part of the cabinet for storing the samples (sample storage cabinet).
2. Upper part of the cabinet divided into three separate compartments for electronics (IP 65 protected), compartment for pumps and valves (IP 65 protected) and compartment for cooling machine with possibility to connect an external air supply.

Easy upgrade to monitoring station.

### **Thermostatic Control**

Sample storage cabinet with temperature control system including refrigeration and heating. Interior temperature freely adjustable (preset to +3 °C),  $\pm 1$  °C at ambient temperatures from -25 °C to + 42 °C. Frost protection heating with overtemperature protection, shutdown at 70 °C. Adjustable fully automatic and manual defrosting. Drainage for condensed water.

### **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) [optional: Profibus-DP or Profinet].

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].

The dosing unit is located in the temperature-controlled sample storage cabinet and therefore frost-protected.

For sampling under pressure-free conditions.

At least 12 mm internal diameter of the complete sample line (from hose tip to the bottle).

Hose inlet from left or right side.

[optional:

- VAR-C sampling system for flow proportional sampling (CTVV)]
- Peristaltic Pump
- Sampling system for pressurized lines (please contact WaterSam)]

### **Pump**

Standard pump: 230 V AC, air capacity 14 l/min, pressure 1 bar, vacuum -0.8 bar, lift height up to 8 m. Motorized pinch valve with adjustable closing force. Pinch valve works without twisting the hose.

[optional:

- High-performance pump: 230 V AC, air performance 19 l/min, pressure 6 bar, vacuum -0.85 bar, lift height up to 8 m; Pneumatic pinch valve without twisting the hose, average pump running time: 15,000 hours (corresponds to approx. 10 years)].
- High-performance pump: 230 V AC, air performance 34 l/min, lift height up to 9 m. Motorized pinch valve with adjustable closing force. Pinch valve works without twisting the hose.]

### **Sample distribution**

XY-distributor for direct sample distribution. Two distributor arms for guiding the distributor hose over the respective sample bottle and releasing sample directly into the bottle. Several preset bottle layouts and free memory for entering any bottle positions directly on the control by the user.

Simultaneous use of several different bottle sizes as well as utilization of the entire surface area of the sample chamber is possible.

Automatic catching up of bottle changes after a power failure.

**[Please select desired bottle configuration (more configurations upon request)]**

#### **Composite sample containers (no distributor):**

- 1 x 10,4 l PE
- 1 x 15,4 l PE
- 1 x 20 l PE
- 1 x 26 l PE

#### **Discrete sample bottles (with XY-distributor):**

- 4 x 6,4 l PE
- 4 x 12 l PE
- 12 x 2 l glass
- 12 x 2,9 l PE
- 12 x 2,9 l PE with two-piece carrying tray
- 16 x 2 l PE
- 24 x 1 l PE
- 24 x 1 l PE with two-piece carrying tray
- 24 x 1 l glass

#### **Sets with composite container and discrete sample bottles (with XY-distributor):**

- 12 x 2 l PE + 1 x 6,4 l PE
- 12 x 1 l PE + 1 x 10,4 l PE

### **Intake hose**

Fabric-reinforced PVC intake hose; 5 m length, 12 mm ID, vacuum stable. Including stainless steel tip.

[optional: Strainer basket]

### **Technical data, dimensions and weight**

Mains power: 230 V [optional: 120 V], 50 Hz [optional: 60 Hz]; 16 A fused on site

Dimensions (H x W x D): 1.020 x 590 x 590 mm

Weight: approx. 70-80 kg, depending on equipment

**Type: WS 312**

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