

WS 316 SR

Sampler with Automatic Rinsing



Automatic Self-Rinsing with Clean Tap Water

The WS 316 SR is the ideal sampler for eliminating any risk of cross-contamination, as the entire system can be rinsed after the taking of each sample. It is also well-suited to the sampling of very dirty or greasy sample media, as warm water rinsing is also available if desired.

- Housing made entirely of high-grade stainless steel, incl. roof
- Vacuum/pressure system for precise sample volumes
- Drain position and rinsing allow cleaning of the entire sampling line
- Metering vessel protected in climate-controlled sample chamber
- 8 other sampling systems available, even as double systems
- Program linking and parallel operation as standard software
- Simple upgrade to monitoring station
- Intake hose inlet on the left and right side, optionally through the floor or rear wall
- XY Distributor for direct sample distribution; no cross-contamination and no distributor plate to clean
- Numerous sample bottle sets; up to 47 x 1-litre bottles
- Filling of different bottles and containers in one set for both composite and backup samples
- Customer-specific bottles can easily be used.
- Park position permits the use of large containers without retrofitting.



WaterSam WS 316 SR - Technical Specifications

General

Applications	Stationary indoor/outdoor water sampling
Norms	CE, ISO 5667-compliant
Dimensions	H x W x D: 1290 x 655 x 770 mm Width including base rails: 720 mm
Weight	ca. 90 - 125 kg, depending on equipment
Power Requirements	230 V AC (optional: 110 V AC) 50 Hz (optional: 60 Hz) Main fuse: 16 A
Output	ca. 750 VA max. including high-performance refrigeration and heating units
Ambient Temp.	-25°C to +42°C (optional: up to +55°C, others by request)

Sampling System

Standard	VAC vacuum-pressure sampling system for time-, volume-, event-proportional sampling
Rinsing	Rinsing of metering vessel and intake hose; the metering vessel can be rinsed without rinsing the intake hose (adjustable)
Flow-Proportional (Optional)	- VAR-B: contactless; variable volume - VAR-E: variable volume - Peristaltic pump: variable volume
Other (Optional)	- second sampling system - VAC with safety valve for pressurized lines
Sample Volume	15 - 350 ml (optional: up to 2000 ml)
Metering Vessel	DURAN 50 borosilicate glass; dishwasher-safe, resistant to acid, alkaline, and temperature changes
Pump Performance	230 VAC; -0.8 to 1.8 bar; brushless; 8 m max. lift height, 14.5 l/min free flow; V_m 0.5 m/s for lift heights up to 6 m (optional: high-performance Pumps and/or WS VacuPress for lifts heights up to 30 m or more)
Intake Hose	12 mm ID PVC (optional: other diameters)
Wetted Parts	Borosilicate glass, PE, PVC, stainless steel AISI 304 / 316Ti, silicone (optional: alternative materials as required)

Sample Bottles / Distribution

Distributor	XY Distributor, direct sample depositing with two-axis positioning system
Bottle Synchronization	Automatic
Bottle Sets	15 x 2 l PE 15 x 2,9 l PE 23 x 2 l PE 35 x 1 l PE 35 x 0.9 l glass
Additional Bottle Set Possibilities	Use of customer-specific bottles without additional parts; via software setting change
Rinsing water discharge	Rinsing position with installed drain (on-site wastewater drain required)

Housing and Thermal Control

Housing Material	Double-walled stainless steel AISI 304 Optional: - Stainless steel AISI 316Ti - Powder-coating (RAL colours) - Plastic (UV resistant)
Insulation	40 mm; cold bridge free; not foamed
Environmental Consideration	Construction facilitates easy separation of materials for proper recycling and disposal
Partitioning	Three separate technical compartments in top dry section for electrical/electronics, refrigeration unit and other components
Placement of Sampling System	Metering vessel in thermal-controlled sample chamber; protected from heat and frost
Installation	Easy floor mounting and firm footing with sturdy base rails
Thermostat	PT 100 3-point thermostat; adjustable from 0.1° to 10°C (optional: larger range)
Refrigeration	Compressor refrigeration unit, 230 V, 160 W; R134a refrigerant (CFC-free); with freely adjustable automatic defrosting (interval, time, duration, max. temperature). Optional for corrosive environment, e.g. H2S: evaporator plate separate from sample storage chamber, clean external air drawn to cabinet via ventilation flange
Heating	Electric heating unit in stainless steel sleeve; 230 V, 350 W (optional: 24 V version)
Sample Chamber	Freely adjustable internal temperature (preset to 3°C)

Controller

General	Microprocessor controller with 4-button operation, backlit 4 x 20 character display, real-time clock, battery backed-up RAM memory (5 years), overload-protected outputs, 4 completely separated analog inputs (differential input)
Software	Menu-based operating system; 9 programs, multiple programs can be operated simultaneously Memory for fault, event, and operational conditions, preset operating programs, always switchable Preset and freely programmable distributor settings Ability to link and combine programs
Inputs:	Flow: 0/4 - 20 mA / potential free contact Event: potential free contact closure
Outputs (standard model)	4 in total: run message fault message 2 free outputs
Modem (optional)	Remote operation / fault message via SMS / Remote start via mobile phone
Advanced controller (optional)	See Advanced Controller datasheet

Additional options and accessories as well as custom equipment available by request.

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