

# Maritime: ScrubberMonitor Solution

Applications  
• Maritime Water



## Your reputation is our reputation. The ScrubberMonitor you can trust.

### Taking care of water is our legacy

Hach® knows water. We have dedicated nearly a century to helping our customers find the best water analysis solutions for their needs. Our exhaust gas cleaning washwater monitoring systems build on that foundation to provide solutions for the maritime industry and environment. We understand the importance of compliance and our instrumentation helps you meet ever-changing IMO regulatory requirements, ensuring maximum uptime.

### Proven technology gives you a whole solution

Our ScrubberMonitor is built to be user-friendly, and flexible for tight ship spaces. With an IP54 rating, our fiberglass cabinet provides great protection and eliminates the possibility of corrosion. Numerous configurations are available, with or without a pump and de-bubbler, so you can be confident that Hach has a solution for your specific need. You can rest assured that you will receive high-quality products as all instruments are built by Hach. Our integrated supply chain ensures parts are globally available, eliminating costly downtime.

### We will be there

We are your water partner in maritime. With decades of global service experience, you can count on Hach to be there when you need support. We offer easy instrument exchanges in Asia, Europe, and North America and can provide commissioning assistance. Inquiries ranging from technical support (live, chat and online knowledge base\*), global parts supply ordering and bench service with exchanges will be managed in a quick, efficient manner. Hach offers unparalleled service anywhere, anytime.

### Type Approvals

We understand the complexities and requirements of a global maritime business; that's why we take pride in receiving class approval certifications from the following organizations: DNV-GL, ABS, ClassNK, Japanese Government, and Korean Register. (Certifications may be pending final reviews and certifications with certain Maritime Societies.)

\*Hach Support Online (HSO) combines more than 80 years of water analysis knowledge into a powerful online global community. Continuously updated content ensures you have real time support, 24/7. Learn more at [support.hach.com](http://support.hach.com)



## Technical Data\*

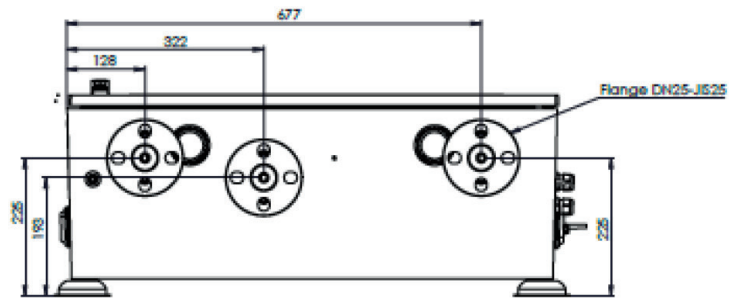
Model	SM100	SM200	SM300	SM400	SM500	SM600	SM700	SM800
Parameter	pH, Conductivity	Turbidity	pH, Conductivity Turbidity	Turbidity, PAH	pH, Conductivity, Turbidity, PAH	pH, Turbidity	pH, Turbidity, PAH	pH
Instrument	SC1000, pHD sc, Inductive Conductivity	SC1000, Ultraturb sc	SC1000, pHD sc, Inductive Conductivity, Ultraturb sc	SC1000, Ultraturb sc, PAH500	SC1000, pHD sc, Inductive Conductivity, Ultraturb sc, PAH	SC1000, pHD sc, Ultraturb sc	SC1000, pHD sc, Ultraturb sc, PAH500	SC1000, pHD sc
Range	pH: 0 - 14 Cond.: 200 µS/cm - 2000 mS/cm	Turb.: 0.0001 - 1000 FNU	pH: 0 - 14 Cond.: 200 µS/cm - 2000 mS/cm Turb.: 0.0001 - 1000 FNU	Turb.: 0.0001 - 1000 FNU PAH: 0 - 900 ppb (PHE)	pH: 0 - 14 Cond.: 200 µS/cm - 2000 mS/cm Turb.: 0.0001 - 1000 FNU PAH: 0 - 900 ppb (PHE)	pH: 0 - 14 Turb.: 0.0001 - 1000 FNU	pH: 0 - 14 Turb.: 0.0001 - 1000 FNU PAH: 0 - 900 ppb (PHE)	pH: 0 - 14
Dimensions	W x H x D: 800 x 1000 x 300 mm (31.5" x 39.4" x 11.8") Overall dimensions, including flanges, shock absorbers and lifting bolts; W x H x D: 810 x 1135 x 310 mm (31.9" x 44.7" x 12.2")							
Weight	± 55 kg (176 lb)							
Housing Material	Fiberglass-reinforced unsaturated polyester], with door, including viewing window Ingress protection IP56 (corresponds to NEMA 4)							
Power	100-240 VAC ±10%, 50/60 Hz, 460 VA							
Earth Connection	Dry and clean grounding pole with low impedance (< 1 Ω) with an earth cable of > 2.5 mm <sup>2</sup> (13 AWG)							
Installation Category	Maritime - [Machinery spaces, control rooms, accommodation, bridge] DNV GL-CG-0339 Class A, except Class B for damp heat exposed by vibrations from surroundings max. 1 mm/speak conform Class A							
Ambient Temperature	0 - 50 °C (32 - 122 °F); ≤ 95% relative humidity, non-condensing, non-corrosive							
Storage Conditions	0 - 50 °C (32 - 122 °F); ≤ 95% relative humidity, non-condensing, non-corrosive							
Analog Outputs	4 - 20 mA** – temperature corrected pH (2.5 - 11 pH) 4 - 20 mA** – temperature corrected Conductivity (0 - 2,000,000 µS/cm) 4 - 20 mA** - turbidity (0 - 400 FNU) **Active / maximum load: 500 Ω / galvanically isolated							
Sample Requirements	Seawater/Polluted seawater/Fresh water with NaOH/Residue particles of HFO combustion / Salts (Na <sub>2</sub> SO <sub>4</sub> etc.) Pressure: 0 - 6 bar (0 - 87 PSI) Temperature: 0 - 50 °C (32 - 122 °F) Density: 1020 kg/m <sup>3</sup>							
Alarm	Low Sample Flow Alarm (Flow < 2 L/min = Alarm)*** ***Potential Freed Contact (Contact Open = Alarm)							

\*Subject to change without notice.

## Dimensions

[In millimeters]

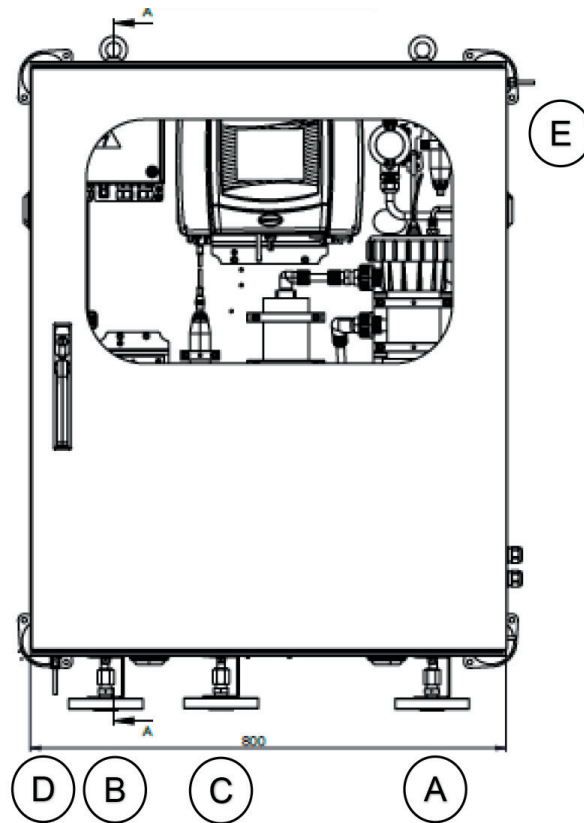
Bottom View



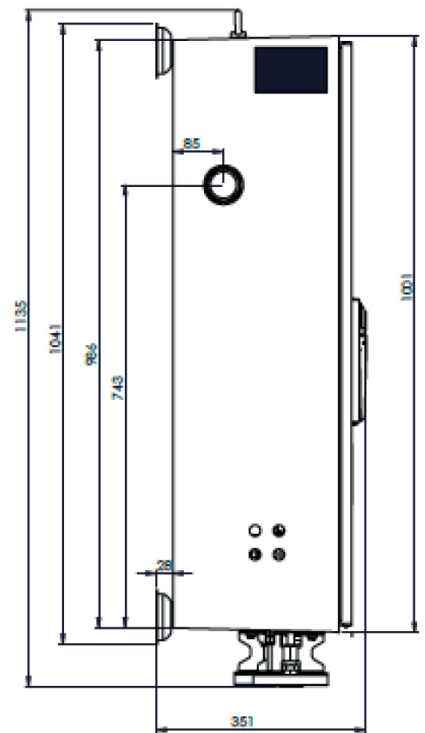
Right Side View



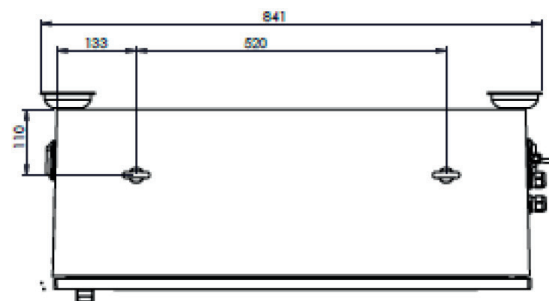
Front View



Left Side View



Top View



- A - Sample Inlet
- B - Sample Outlet
- C - Drain
- D - Manual Sample
- E - Vent

## Order Information

### Analyzers

<b>LZH409.99.00100</b>	ScrubberMonitor SM100: pH, Conductivity
<b>LZH409.99.00200</b>	ScrubberMonitor SM200: Turbidity
<b>LZH409.99.00300</b>	ScrubberMonitor SM300: pH, Conductivity, Turbidity
<b>LZH409.99.00400</b>	ScrubberMonitor SM400: Turbidity, PAH
<b>LZH409.99.00500</b>	ScrubberMonitor SM500: pH, Conductivity, Turbidity, PAH
<b>LZH409.99.00600</b>	ScrubberMonitor SM600: pH, Turbidity
<b>LZH409.99.00700</b>	ScrubberMonitor SM700: pH, Turbidity, PAH
<b>LZH409.99.00800</b>	ScrubberMonitor SM800: pH

### Parts and Accessories

<b>APPS10011887</b>	Pump including flexi hose and flanges for ScrubberMonitor cabinets
<b>APPS10011888</b>	De-bubbler including tubing and pressure relief valves for ScrubberMonitor cabinets
<b>YAB019</b>	SC1000/SC1500 Internal 0/4-20 mA Analog Output Card
<b>YAP013</b>	Processor board Solitax sc
<b>APPS10011156</b>	Sparepart Kit Q7 Flowswitch
<b>APPS10011157</b>	Sparepart Kit Overflow Vessel

### Reagents and Consumables

<b>LZV275</b>	Set of 4 wiper blades
<b>LZX304</b>	Desiccant 2, Ultraturb plus sc
<b>LZC541</b>	PAH500 Sensor Calibration Kit
<b>2749320</b>	Disposable Pipettes, pk/20
<b>9775100</b>	Cleaning Swab, 3/8" Foam Tip, L=155 mm, 10/pk
<b>25M1A1001-115</b>	Standard Cell Solution, Concentrated pH 7.0 Buffer (equi-transferrant), 500 mL. For replenishing standard cell chamber while replacing salt bridges for for Regenerateable Encapsulated LCP or PPS Differential pH and ORP Sensors–1-1/2 inch
<b>2283449</b>	pH Buffer Solution, pH 4.01, 500 mL
<b>2283549</b>	pH Buffer Solution, pH 7.00, 500 mL
<b>2283649</b>	pH Buffer Solution, pH 10.01, 500 mL
<b>SB-P1SV</b>	PEEK sensor and salt bridge body, PVDF outer junction

### Hach Service Protects Your Investment

With Hach Service, you have a global partner who understands your needs and cares about delivering timely, high-quality service you can trust. Our Service Team brings unique expertise to help you maximize instrument uptime, ensure data integrity, maintain operational stability, and reduce compliance risk.

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Be Right™