

3S-NA Sodium Analyzer

Online analyzer for the determination of sodium in water

APPLICATION FIELDS

- Ultrapure water production/monitoring
- Water/steam cycle
- Power plants



ADVANTAGES / FEATURES

• **Integrated sequencer with four different channels**

The instrument can take measurements on (up to) four different input streams. The multiposition switching valve makes the channel selection operations fully automatic, with timing and scheduling programmable by the user. Each sample line has its dedicated fast loop reservoir to minimize cross interferences and switching times.

• **Fully automated, one or two-point calibration**

The automatic calibration of the electrochemical sensor significantly reduces downtime and operator intervention, ensuring that the most accurate results are obtained. User can determine the frequency of these operations.

• **Wide measuring range, low detection limit**

The 3S-NA analyzer has good performance even in the low range 0 - 10 ppb. Upper limit of detection can be up to 10 ppm. Upper ranges available on request.

• **Large color touchscreen**

The analyzer is equipped with a graphic touchscreen interface showing measured values and status information. Easy access to menus and functions. Integrated datalogger with USB download.

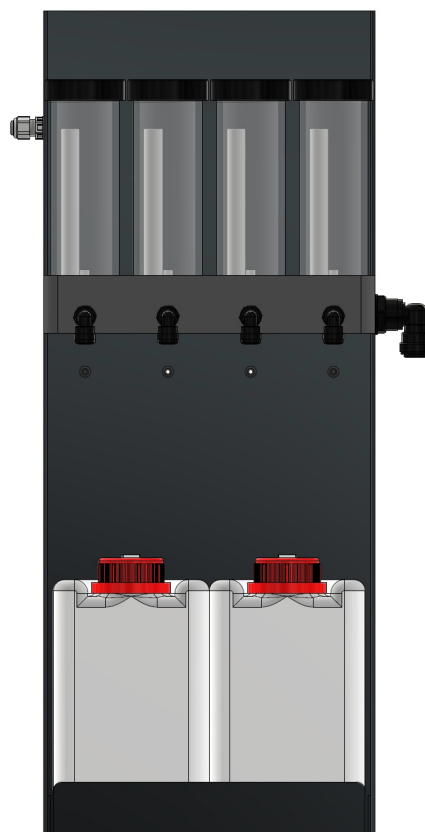
• **Measurement principle**

The instrument takes measurements with an Ion Selective Electrode (ISE) sensitive to sodium ions in solution. The response of the electrode is proportional to the sodium concentration in the sample on a logarithmic scale.

TECHNICAL SPECIFICATIONS

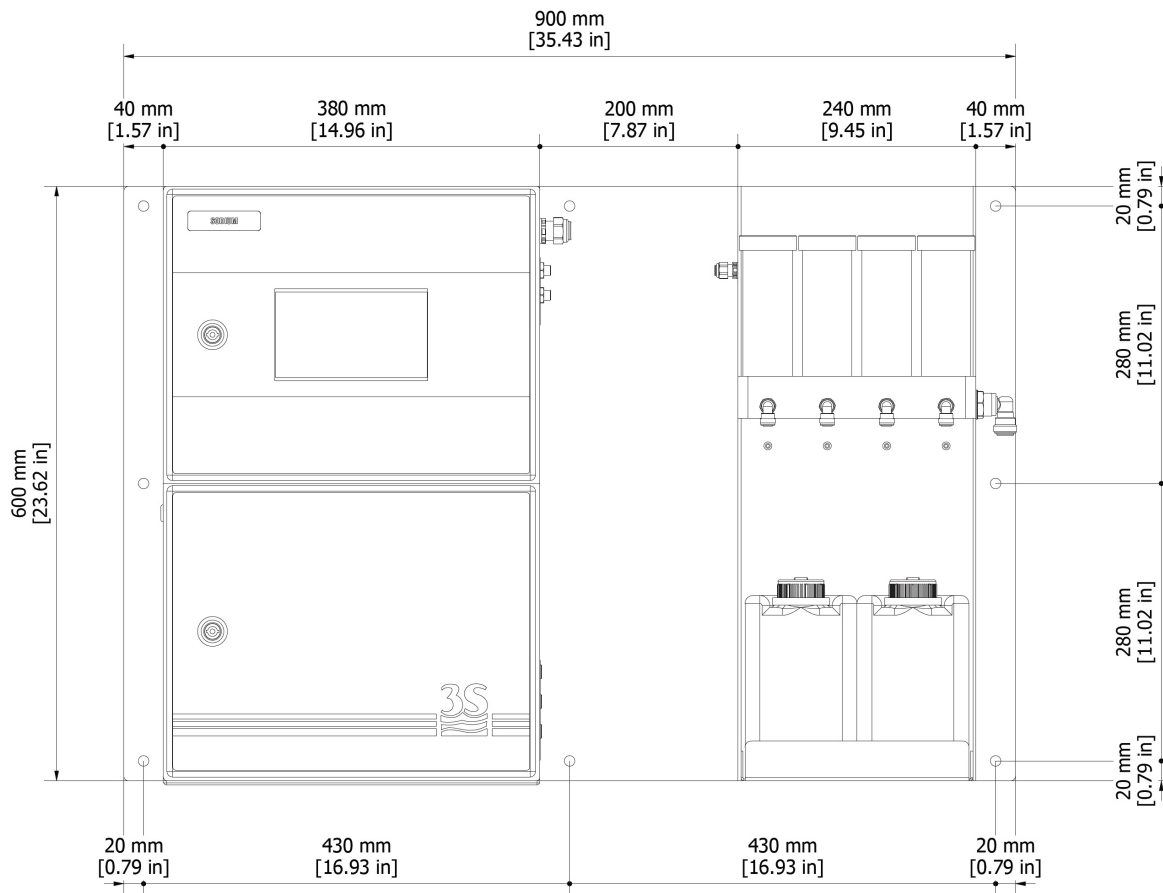
Measured parameters	Sodium ion, Na ⁺ (ppb, ppm)
Measuring principle	Potentiometric detection with glass electrode and reference (or combined electrode)
Measuring range	Selectable full scale 10 ppb - 10 ppm
Lower detection limit	0.01 ppb
Accuracy	± 5% of the reading or ± 0.1 ppb at calibration temperature
Analysis Frequency	Continuous operation.
Calibration	Manual or automatic, 1-point or 2-point calibration
Sample	Pressure: Atmospheric Temperature: 5 - 50 °C (41 - 122 °F) Flow Rate: 80 to 500 ml/min Connection: 6 mm (¼-in.)
Drain	Pressure-free, atmospheric drain Connection: 12 mm (½-in.)
N° of streams	Up to 4 sample streams, 2 additional streams for standard solution(s)
Dimensions (H x W x D)	604 x 900 x 242 mm (23.6 x 35.4 x 9.4 in)
Weight	Approx. 30 kg (66 lbs)
Power Supply	Voltage: 100 - 240 VAC 50/60 Hz standard or 24 VDC (option) Power consumption: max. 80 VA
Outputs	4 x 4-20 mA outputs for measured data Modbus RTU RS485
Alarms	4 SPDT programmable potential free relays
Operative Conditions	Temperature: 5 - 50 °C (41 - 113 °F) Humidity: 10 to 90% RH (indoor use only)
Installation	Wall mount (standard) or panel mount (options).
Protection Grade	IP54
Maintenance frequency	Refill buffer solution (monthly). Electrode replacement (depending on samples). Pinch valve tubing replacement every 6 month

INTEGRATED SEQUENCER



The integrated sequencer can switch up to 4 different channels. Two additional channels are reserved for the standard solution tanks. The switching valve integrated in the analyzer is controlled by the instrument's main electronic board and makes all the analysis and calibration operations fully automated. Every channel is equipped with a level sensor to automatically detect the presence of the sample and skip the analysis if a sample stream is missing. Additionally, every channel can be individually switched off at will. The analyzer is available in different versions, depending on the maximum number of streams required.

TECHNICAL DRAWING



PRODUCT CODES

NA-1-MC	SINGLE CHANNEL ANALYZER, MANUAL CALIBRATION
NA-1-AC	SINGLE CHANNEL ANALYZER, AUTOMATIC CALIBRATION
NA-2	DOUBLE CHANNEL ANALYZER, AUTOMATIC CALIBRATION
NA-3	3 CHANNELS ANALYZER, AUTOMATIC CALIBRATION
NA-4	4 CHANNELS ANALYZER, AUTOMATIC CALIBRATION