

## AQUALYZER® 9001 SERIES Sodium Analyzer

### Aqualyzer® 9032

The Waltron Aqualyzer® 9032 Sodium Analyzer has been designed to provide exceptional results when measuring sodium ion concentrations online.

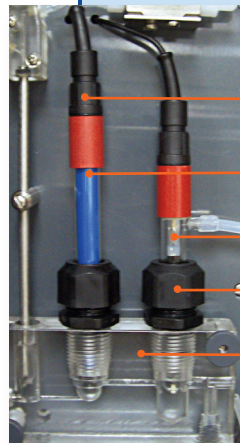
The 9032 can be used in a variety of ultrapure water applications. Common application points in a boiler system for online sodium measurement include: make-up water, condensate, boiler feedwater and saturated steam/main steam.

The Waltron 9032 Sodium Analyzer comes with **true fully automatic calibration** and offers many benefits in terms of ease-of-use and increased functionality.



## FEATURES

- Wide analysis range: 0.1 ppb – 10 ppm
- True fully automatic single or 2-point calibration
- Low maintenance: no change of standards for up to two months (one month for reagent)
- Missing sample flow indication
- Quick connect electrodes
- Probe positioning clamps
- Automatic reference electrode electrolyte refill system (optional)
- Grab sample capability
- Process calibration – calibrate to sample
- Two 4-20 mA isolated current outputs
- Protection of electrodes from "Hot Sample"



- Quick Connect Electrodes
- Sodium Measuring Electrode
- Reference Electrode
- Probe Positioning Clamp
- Flow Cell

## BENEFITS

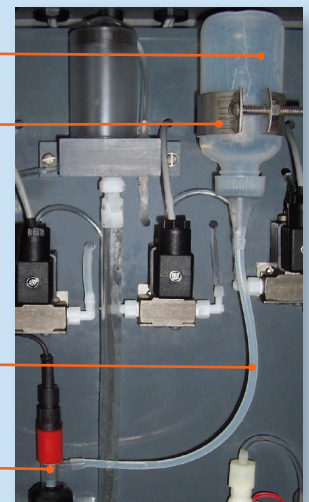
- Low reagent and standard consumption
- Minimal maintenance required
- Automatic operation

KCL Solution Reservoir Bottle

Bottle Clamp

KCL Transfer Tubing

Reference Electrode



## PERFORMANCE

<b>Range:</b>	0.1ppb – 10ppm
<b>Accuracy:</b>	± 5% of reading or ± 0.1ppb (whichever is greater) within ± 5°C of calibration temperature
<b>Reproducibility:</b>	± 5% of reading or ± 0.1ppb (whichever is greater) at constant temperature
<b>Response Time:</b>	90% of 1-10ppb step: less than 4 minutes; 90% of 100-1ppb step: less than 6 minutes
<b>Temperature Compensation:</b>	Automatic
<b>pH Compensation:</b>	Alkaline vapor buffer: 0.88 SG (35% W/V) ammonia above 0.3 ppb sodium, 50% diethylamine solution below 0.3 ppb sodium. Analyzer drain allows for easy sample pH measurement.
<b>Single or 2-point Calibration:</b>	Manual and fully automatic calibration. Manual initiated by operator, automatic with programmable frequency in days. No manual changes of standards during calibration.
<b>Current Outputs:</b>	Two isolated 4-20mA current (analog) outputs
<b>Digital Outputs:</b>	Communication interface via RS-232 & RS-485 using MODBUS RTU protocol
<b>Alarms:</b>	Missing sample alarm and three additional voltage-free contacts, alarm points set from transmitter rated at 2A, 250VAC (non-inductive)
<b>Power:</b>	Wide range of input power supply 90VAC – 250VA
<b>CE Certification (on request):</b>	Meets low voltage and low electromagnetic compatibility directives

## OPERATING CONDITIONS

<b>Sample:</b>	Temperature: 41 – 131 °F (5 - 55°C); Flow 150 – 400 ml/min
<b>Ambient Temperature:</b>	32 – 131 °F (0 - 55°C)
<b>Pressure:</b>	5 – 30 psig (0.35 – 2.07 bar)
<b>Composition:</b>	Sample should be filtered to 60 microns, free of film forming compounds

## MECHANICAL

<b>Construction:</b>	Transmitter – high strength ABS, IP65 (NEMA 4x) Wet section – high strength ABS and sheet metal, all wetted parts stainless steel or PVC, IP55 (NEMA 4)
<b>Dimensions:</b>	Height=31" (78.74 cm) including drain, Width=22" (55.88 cm), Depth=8.5" (21.59 cm)
<b>Mounting:</b>	Four key-style holes: Height=0.86" (2.18 cm), Top Width=0.281" (0.714 cm), Radius=0.280" (0.711 cm) Horizontal: 14.7" (37.34 cm), Vertical: 11" (27.94 cm)
<b>Weight:</b>	40 lbs. (18.14 kg)
<b>Wiring:</b>	Eight (8) conduit knockouts. Quick connect electrodes.
<b>Piping:</b>	Sample Inlet: 1/4" (0.635 cm) OD Swagelok®, Drain: 3/8" (0.953 cm) OD tube
<b>Distance:</b>	Up to 325 feet (100 meters) on request
<b>Finish:</b>	Corrosion resistant

### Aqualyzer® 9032 Sensor Unit

The sample flows through the flow switch, into the heat exchanger, passes through the constant head unit (used to stabilize minor changes in flow rate) and through the three solenoid valves. A vapor entrainment mechanism adds alkaline buffer vapor to the sample before it enters the sodium measuring flow cell and flows to drain. Calibration and grab sample are controlled automatically by the analyzer. Standard/grab sample liquid is brought into system via the three 3-way solenoid valves. A thermistor is housed in the flowcell and is used to detect the temperature of the sample/standard/grab sample.

