# Polymetron NA9600 sc Online Sodium Analyzer

#### **Applications**

- Industrial Water
- Power





## Ensure uptime with accurate, low-level sodium measurements and predictive diagnostics.

Be confident in your steam cycle water with proprietary predictive diagnostic tools, automatic electrode reactivation to avoid downtime, less maintenance with 90-day reagent replacement, and a convenient small footprint for easy integration with the new Polymetron NA9600 sc Sodium Analyzer.

### Optimize Operation and Response Time with Automatic Electrode Reactivation

To maintain optimum response time and accuracy, the NA9600 sc analyzer provides automatic electrode reactivation. Reactivation uses non-hazardous chemicals and eliminates the need for manual reactivation or electrode etching.

#### **Space-Saving Design**

Smaller instrument footprint with streamlined layout to allow for easy integration into existing or new sites.

#### **Low Maintenance**

Maintenance of the NA9600 sc Sodium Analyzer requires reagent replenishment only every 90 days and annual replacement of reagent tubing and the sodium electrode. Clear step-by-step instructions are provided to simplify maintenance operations.

#### **Avoid Downtime**

Predictive diagnostic tools, including Hach's proprietary Prognosys technology, warning LEDs, and high visibility notification screens let you avoid unplanned downtime.

#### Technical Data<sup>\*</sup>

Range Analyzers without cationic pump:

0.01 ppb - 10,000 ppb

Analyzers with cationic pump:

0.01 ppb - 200 ppm

Repeatability < 0.02 ppb or 1.5% reading

> (whichever is greater) within  $\pm 10 \, ^{\circ}$  C ( $\pm 50 \, ^{\circ}$  F) variation

Lower Limit of 0.01 ppb

Detection (LOD)

Response Time From 0.1 ppb to 10 ppb:

 $T90 \le 3 \text{ minutes}, T95 \le 4 \text{ minutes}$ 

From < 1 ppb to 100 ppb:

T90 < 2 minutes, T95 < 3 minutes

(about 150 s)

Calibration Method Automatic with known addition

Manual: 1 or 2 points

Sample conditioner For non-cationic applications:

Di-isopropylamine (DIPA)

(1 L/90 days) at 25 °C for a sample

pH target of 10.5

For cationic applications:

DIPA (1 L/month) at 25 ° C for a sample

pH target of 10.5

Number of Channels 1, 2 or 4 with programmable

sequence

Max. Concentration < 2 NTU, no oil, no grease of Suspended Solids For boiler sample type install

in Sample approx. 100 µm filter

Acidity < 50 ppm, non-cationic application

< 250 ppm, cationic application

Sample Temperature 5 - 45 °C (41 - 113 °F) Ambient Temperature 5 - 50 °C (41 - 122 °F) Sample Pressure 0.2 - 6 bar (3 - 87 psi) Sample Flow Rate 100 - 150 mL/min (6 - 9 L/h)

Inlet Sample line and sample bypass

drain: 6 mm O.D. push-to-connect

fitting for plastic tubing Chemical and case drains:

7/16 inch I.D. slip-on fitting for soft

plastic tubing

Power Requirements 100 - 240 VAC

(Voltage)

Power Requirements 50/60 Hz

(Hz)

Protection Rating Analyzer with enclosure:

NEMA 4/IP65

Analyzer without enclosure:

IP65, PCBA housing

Display Colored 5.7" LCD

**Analog Outputs** 6 isolated, 0 - 20 mA or

4 - 20 mA; load impedance:

600 Ohm maximum

Connection: 0.644 - 1.29 mm<sup>2</sup>

(24 - 16 AWG) wire:

0.644 - 0.812 mm<sup>2</sup> (24 - 20 AWG) recommended, twisted pair

shielded wire

**Relay Output** 6; type: not powered SPDT relays,

each rated at 5 A resistive,

240 VAC maximum

Connection: 1.0 - 1.29 mm<sup>2</sup> (18 - 16 AWG) wire; 1.0 mm<sup>2</sup> (18 AWG) stranded recommended,

5 - 8 mm O.D. cable

**Digital Inputs** 6; non programmable, isolated TTL

> type digital input or as a relay Open - collector type input 0.644 - 1.29 mm2 (24 - 16 AWG)

wire; 0.644 - 0.812 mm2 (24 - 20 AWG) stranded

recommended

Material Polyol case, PC door, PC hinges

and latches, 304/316 SST hardware

**Dimensions** Analyzer with enclosure:

681 mm x 452 mm x 335 mm

 $(H \times W \times D)$ 

Analyzer without enclosure: 681 mm x 452 mm x 254 mm

 $(H \times W \times D)$ 

Weight Analyzer with enclosure:

> 20 kg (40.1 lb) with empty bottles Analyzer without enclosure: 14 kg (30.7 lb) with empty bottles

Maintenance Interval Every 90 days: refill electrolyte,

reactivation, conditioning, and

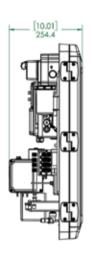
calibration solution

\*Subject to change without notice.

#### **Principle of Operation**

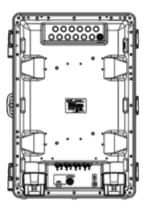
The Polymetron NA9600 sc Sodium Analyzer uses an ion-selective electrode measurement after pH conditioning. Sample pH conditioning is essential for limiting the interference of temperature or other ions on sodium measurement. Constant, temperature-compensated buffering is assured using regulated reagent addition across sample pH and temperature changes. In case of a multichannel versionthe "smart" rinsing sequence between channels ensures a minimum cycle time of 10 minutes and no carry-over effect.

#### **Dimensions**















#### **Order Information**

#### **Analysers**

Panel Mount Unit	Unit with Enclosure	
LXV526.97.2011G	LXV526.97.1011G	Polymetron NA9600sc Sodium Analyzer , 1-channel
LXV526.97.2012G	LXV526.97.1012G	Polymetron NA9600sc Sodium Analyzer , 2-channel
LXV526.97.2014G	LXV526.97.1014G	Polymetron NA9600sc Sodium Analyzer , 4-channel
LXV526.97.2111G	LXV526.97.1111G	Polymetron NA9600sc Sodium Analyzer, 1-channel, with Autocalibration
LXV526.97.2112G	LXV526.97.1112G	Polymetron NA9600sc Sodium Analyzer, 2-channel, with Autocalibration
LXV526.97.2114G	LXV526.97.1114G	Polymetron NA9600sc Sodium Analyzer, 4-channel, with Autocalibration
LXV526.97.2211G	LXV526.97.1211G	Polymetron NA9600sc Sodium Analyzer , 1-channel, with Cation Kit
LXV526.97.2212G	LXV526.97.1212G	Polymetron NA9600sc Sodium Analyzer , 2-channel, with Cation Kit
LXV526.97.2214G	LXV526.97.1214G	Polymetron NA9600sc Sodium Analyzer , 4-channel, with Cation Kit
LXV526.97.2311G	LXV526.97.1311G	Polymetron NA9600sc Sodium Analyzer , 1-channel, with Cation Kit & Autocalibration
LXV526.97.2312G	LXV526.97.1312G	Polymetron NA9600sc Sodium Analyzer , 2-channel, with Cation Kit & Autocalibration
LXV526.97.2314G	LXV526.97.1314G	Polymetron NA9600sc Sodium Analyzer , 4-channel, with Cation Kit & Autocalibration

#### **Upgrade Options**

8371200	Kit, K-pump Polymetron NA9600 sc
9013200	Modbus RS232/485 Module
9173900	Profibus DP Module

8425700 Hart Module

8428000 Prognosys Polymetron NA9600 sc License Kit

#### Accessories

595=010=000 Sample Filter, 100 micron, metric fittings 595=010=005 Sample Filter; 100 micron, imperial fittings 8368900 Kit, Heater Exchange, Polymetron NA9600 sc

#### **Consumables and Spare Parts**

9660500 Polymetron NA9600 sc one year spare parts kit

595=010=906 Replacement Filter Cartridges, pk/6 2835153 Sodium Standard, 10 ppm, 1 L 2834253 Sodium Standard, 100 ppm, 1 L 2507149-CN Sodium Nitrate, 0.5M, 500 mL

#### **Be confident with Hach Service**

Start-Up/Commissioning: Our service technicians visit your site and setup instrumentation, provide basic enduser training on operations and maintenance, and validate settings and performance to get you started. Service Agreement: Hach provides on-site and in-factory repair, preventive maintenance, and calibration programs for your instruments to ensure reliability and instrument up-time. We have services to fit your specific needs.

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