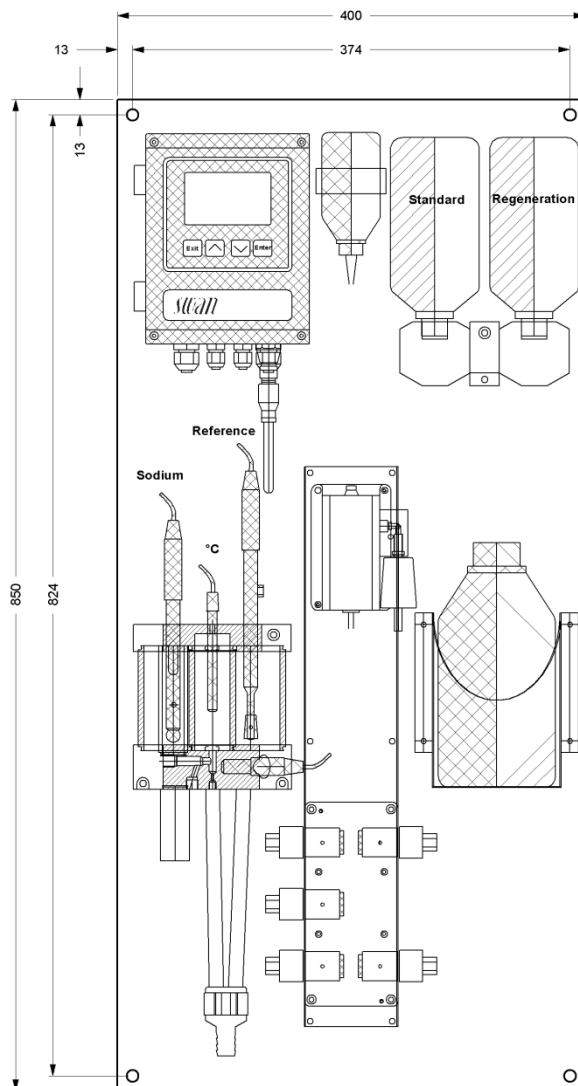


Analyzer for the continuous measurement of sodium ions in trace amounts in high purity water applications and steam generation.

Analyzer AMI Soditrace

- Complete Sodium analyzer panel-mounted for easy wall installation.
- Lowest available detection limit for sodium ion concentrations of 0.001 ppb.
- Automatic :
 - 3 point known-addition calibration in the ppb range.
 - Regeneration of sodium electrode.
 - Control of sample pH conditioning.
 - Temperature compensation.
- Continuous monitoring of undervoltage, reagent exhaustion, sample flow, sample temperature.
- Galvanically separated connection for sodium and reference electrodes, temperature and conductivity sensor.
- Big backlit LC display for the reading of measuring value, sample temperature, pH (conductivity value) and operating status.
- Easy user menus in English, German, French and Spanish. Simple programming of all parameters by keypad.
- Electronic record of major process events and calibration data.
- Data logger for 1'500 data records stored at a selectable interval. (Data download to PC requires optional HyperTerminal interface).
- Two current outputs (0/4 – 20 mA) for measured signals.
- Factory tested, ready for installation and operation.



Order Nr.	Analyzer AMI Soditrace	A-24.611.100
Option:	☐ 3 rd current signal output (0/4 – 20mA) ☐ Profibus DP interface ☐ HyperTerminal interface (RS-232) ☐ Modbus interface ☐ USB interface	A-81.410.020 A-81.420.020 A-81.420.010 A-81.420.022 A-81.420.040

Sodium measurement

Sodium measurement

Sodium glass electrode, screw cap.
Calomel reference electrode, screw cap.

Measuring range: 0.001 ppb – 10 ppm
Accuracy: ± 0.005 ppb
or $\pm 10\%$ of reading
Reproducibility: ± 0.001 ppb
or $\pm 5\%$ of reading
Response time: 120 s (90%)

Automatic: 3 point calibration
Electrode regeneration
Temperature compensation
pH monitoring & control

Temperature measurement

Temperature sensor: SWAN NT5K
Measuring range: -30 to +130 °C
Resolution: 0.1 °C

Transmitter Specifications and Functionality

Electronic case: Aluminum
Protection degree: IP 66 / NEMA 4X
Display: backlit LCD, 75 mm x 45 mm
Electrical connectors: screw clamps
Ambient temperature: -10 to +50 °C
Limit range of operation: -25 to +65 °C
Storage and transport: -30 to +85 °C
Humidity: 10 - 90 % rel., non condensing

Power supply

Voltage: 100 - 240 VAC ($\pm 10\%$),
50/60 Hz ($\pm 5\%$)
or 24 VDC, isolated ($\pm 10\%$)
Power consumption: max. 30 VA

Operation

Easy operation based on separate menus for "Messages", "Diagnostics", "Maintenance", "Operation" and "Installation".

Separate menu specific password protection possible.

Display of process value, alarm status and time during operation.

Storage of event log, alarm log and calibration history.

Storage of the last 1'500 data records in logger with selectable time interval.

Safety features

No data loss after power failure, all data is saved in non-volatile memory.

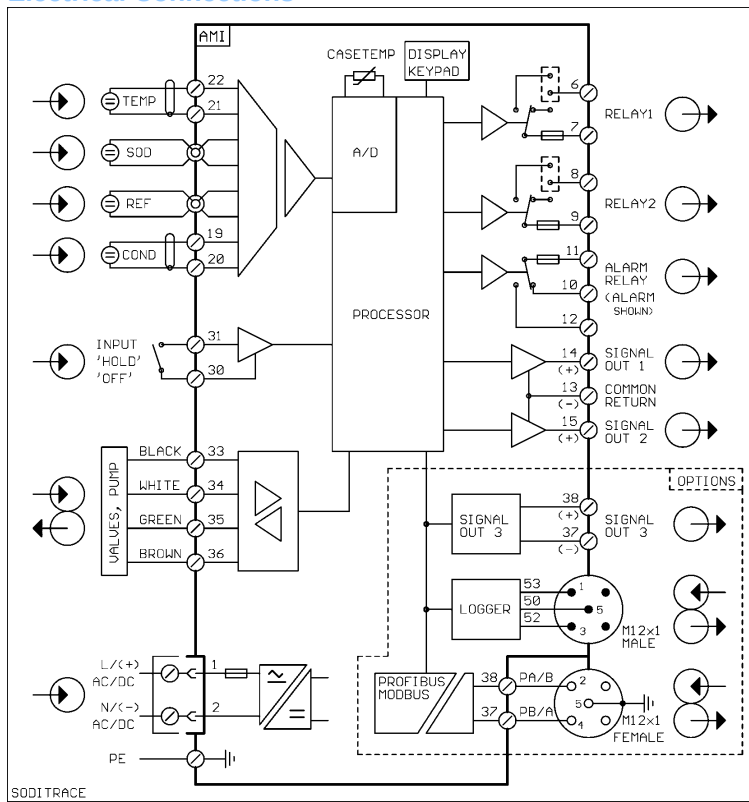
Over voltage protection of in- and outputs.

Galvanic separation of measuring inputs and signal outputs.

Transmitter temperature monitoring

with programmable high/low alarm limits.

Electrical Connections



1 Alarm relay

One potential free contact as summary alarm indication for programmable alarm values and instrument errors.

Max. load: 1A / 250 VAC

1 Input

One input for potential-free contact. Programmable hold or remote off function.

2 Relay outputs

Two potential free contacts programmable as limit switches for measuring values.

Max. load: 1A / 250 VAC

2 Signal outputs (3rd as option)

Two programmable signal outputs for measuring values (freely scaleable, linear or bilinear) or as continuous control output (control parameters programmable).

Current loop: 0/4 - 20 mA

Max. burden: 510 Ω

Control functions

Relays or current outputs programmable for 1 or 2 pulse dosing pumps, solenoid valves or for one motor valve.

Programmable P, PI, PID or PD control parameters.

1 Communication interface (option)

- RS232 interface for logger download to PC with SWANterminal
- RS485 interface (galvanically separated) with Fieldbus protocol Modbus or Profibus DP
- 3rd Signal output
- USB interface

System Data

Sample conditions

Flow rate: min. 100 ml/min.
Temperature: 5 - 45 °C (41 - 113 F)
Inlet pressure: 0.3 - 3 bar (4 - 43 PSI)
Outlet pressure: ambient pressure
pH value: $\geq$ pH 7.0
Ammonium concentration: < 10 ppm
Acidity: < 50 ppm (CaCO₃)
Dissolved solids: < 10 ppm,
no oil and no grease

Note: Please correct the pH of the sample only with Diisopropylamine.

Flow cell and sample connections

Flow cell made of acrylic glass contains sodium electrode, reference electrode, conductivity and temperature sensor.

Inlet: Serto PVDF 6 mm
Outlet: 1/2" for flexible tube

Panel

Panel dimensions: 400 x 850 x 200 mm
Panel material: Stainless steel V4A
Total weight: 13 kg