

Sodium Analyzer

THORNTON
Leading Pure Water Analytics

2301Na Sodium Analyzer

Trace sodium sensitivity

pH Check feature



The 2301Na Sodium Analyzer Reliable Measurement with Solid Value

METTLER TOLEDO

2301Na

Sodium Analyzer

The Thornton 2301Na Sodium Analyzer offers a panel-mounted design for sodium measurement in pure water treatment and power cycle chemistry monitoring. With key technological advances, this analyzer ensures reliable measurement of water purity to minimize corrosion. The 2301Na Analyzer offers solid value and add-on features to enhance capabilities according to your needs.

Measurement you can rely on

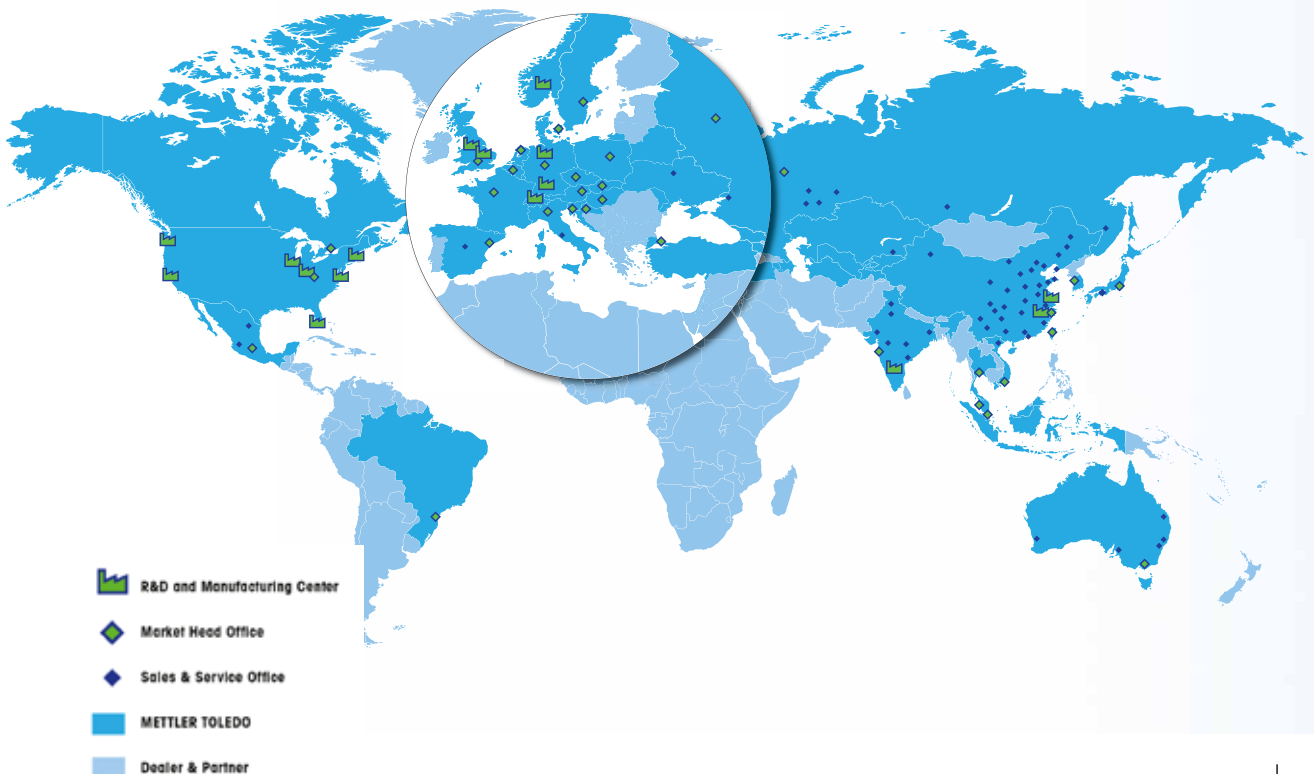
With the unique combination pH and reference electrode, the 2301Na Analyzer checks the pH of the conditioned sample to ensure that the proper amount of reagent is added and the measurement is reliable.

Local support, globally

With local offices staffed by trained sales and service personnel across the world, you are never far from skilled technical help to assist you. Our service technicians are trained regularly so you can count on receiving the latest application and product support from an experienced team.

Solid value

The 2301Na Analyzer meets your measurement accuracy and reliability needs at cost-effective pricing. Available features such as grab sample, filtration and analyzer enclosure enhance capabilities of the analyzer where needed. The 2301Na Analyzer is designed to exceed your expectations without exceeding your budget!



2301Na

Sodium Analyzer

- **Easy to install, start up, operate and maintain**

From easily accessible mounting, to the intuitive user interface and minimal maintenance requirements, the 2301Na has been designed keeping ease of use in mind.

- **pH Check of conditioned sample**

By monitoring the pH of the conditioned samples, you can ensure enough reagent has been added to reduce interference in the sodium measurement.

- **Your choice of reagent**

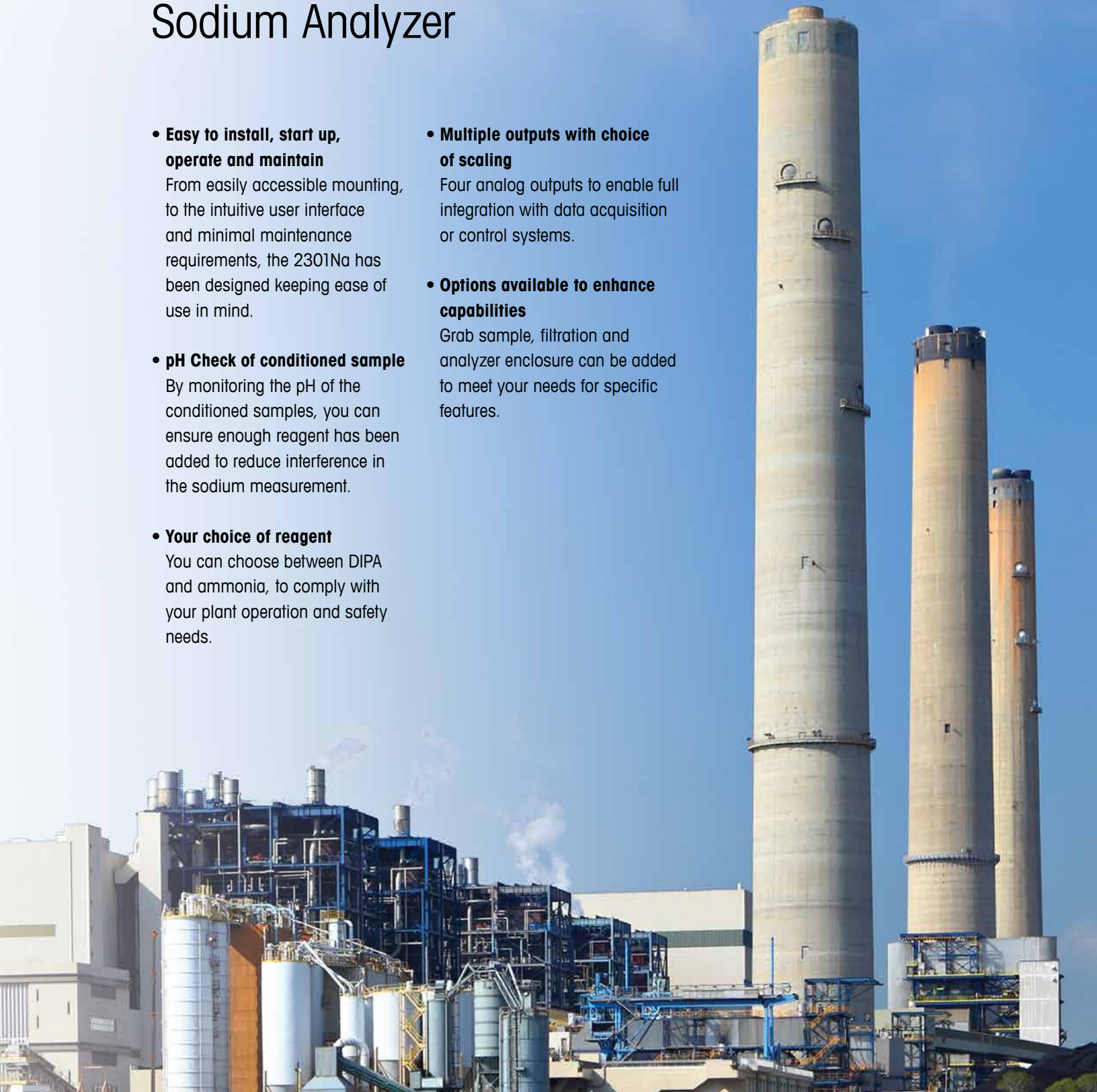
You can choose between DIPA and ammonia, to comply with your plant operation and safety needs.

- **Multiple outputs with choice of scaling**

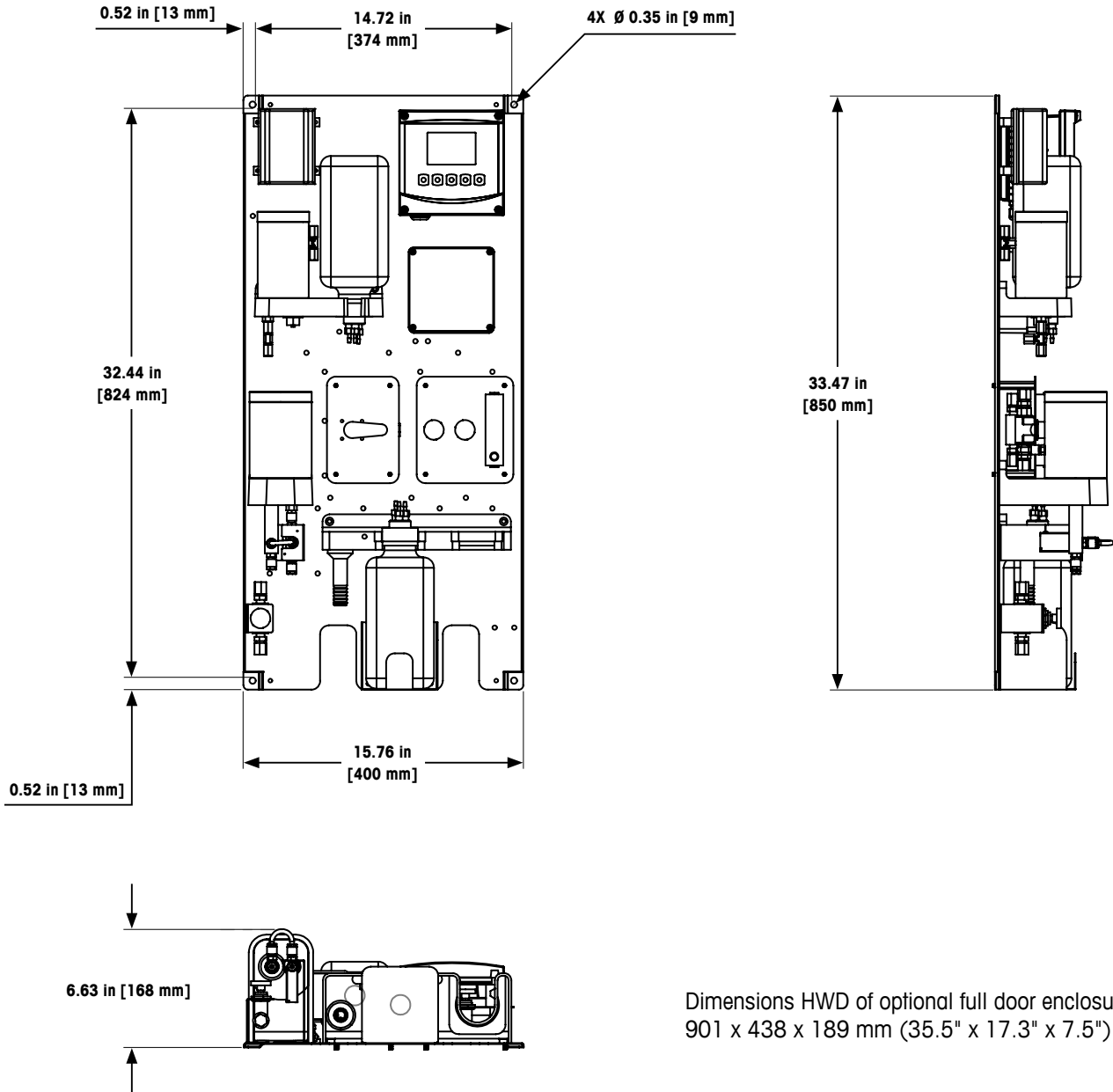
Four analog outputs to enable full integration with data acquisition or control systems.

- **Options available to enhance capabilities**

Grab sample, filtration and analyzer enclosure can be added to meet your needs for specific features.



2301Na Sodium Analyzer Engineering Diagram



Dimensions HWD of optional full door enclosure:
901 x 438 x 189 mm (35.5" x 17.3" x 7.5")

2301Na Sodium Analyzer

Product Specifications

Measurement

Range, sodium	0.01-100,000 ppb or equivalent ppm, auto-ranging
Resolution, sodium	4 digits with decimal, auto-ranging; 0.001 ppb in lowest range
Accuracy, sodium	$\pm 10\%$ of reading ± 0.1 ppb, typical; using DIPA as reagent $\pm 10\%$ of reading ± 1 ppb, typical; using ammonium hydroxide as reagent
Response time (90%)	5 min
Update rate	Once per second
Reagent consumption	Diisopropylamine (DIPA), or ammonium hydroxide, approximately 0.7 L filling per 2 months; more at higher temperatures and for cation exchange samples*
Sample pH	2.5 -12
Sample flowrate	>40 mL/min (>20 mL/min for cation exchange samples), excess to drain
Sample temperature	5-50 °C (41-122 °F)
Sample pressure	0.3-7 bar (5-100 psig)
Calibration	Manual 3-point known addition; manual 1- or 2-point
Grab sample measurement	Available option
Range, pH	0 -14 pH, reagent conditioned sample
Range, temperature	0-100 °C (32-212 °F)

Outputs

Analog outputs	For sodium, conditioned pH, temperature; four powered 0/4-20 mA, 22 mA alarm, 500 ohm max load, not for use with externally powered circuits
Analog output scaling	Linear, bi-linear, logarithmic (1,2,3 or 4 decades) or auto-ranging
Analog output accuracy	± 0.05 mA
Relay contacts	Two unpowered, SPDT, 250 VAC/30VDC, 3 A resistive freely assignable to set-points for sodium, pH, temperature
Range, temperature	0-100 °C (32-212 °F)
Resolution, temperature	Adjustable 0.01 to 1 °C /°F

Installation/Power/Enclosure

Operator interface	4-line backlit LCD, 5 tactile keys; simultaneous display of sodium, conditioned pH, cal status (temperature optional)
Connections	Sample inlet: 1/4" or 6 mm OD tube PP compression fitting Drain hose: 19 x 25.4 mm ($\frac{3}{4}$ x 1"), 2 m (6 ft) length included
Power	100-240 VAC, 50-60 Hz, 25 W; on power loss all settings are retained without batteries
Dimensions HWD enclosures:	851 x 400 x 165 mm (33.5 x 15.75 x 6.5")
Weight	4.5 kg (10 lbs)
Ambient operating temperature	5-50 °C (41-122 °F)
Humidity	10-90% non-condensing
Ratings/approvals	CE, UL, IP65

* Ammonium hydroxide cannot be used for cation exchange samples.

2301Na Sodium Analyzer

Ordering Information

Description	Order No.
2301Na Sodium Analyzer, panel assembly, cRUus	58 042 003
2301Na Sodium Analyzer, with full door enclosure, cULus	58 042 004
Startup Kit - Includes 60 mL of 100 ppm calibration standard, conditioning solution, etching solution, 7 and 10 pH buffer solutions	58 091 115

Accessories and Consumables

Pipette kit	58 091 118
Grab sample kit	58 091 117
Sample Filter Kit	58 091 106
Replacement sodium electrode	52 003 944
Replacement pH/reference electrode	52 003 943
Diisopropylamine (DIPA) reagent, 2.5 L	58 140 017*
Consumables kit 1 year - Includes sodium and pH/reference electrode, air filters, sample filter, diffusion tubing, calibration kit, 7 and 10 pH buffer solutions	58 091 111
Calibration kit 1 year - 120 mL of 100 ppm calibration standard, 60 mL of conditioning solution, etching kit	58 091 108
Ammonium hydroxide, 30%	58 091 114*

* Part number available only in the USA. In other countries consult your local METTLER TOLEDO Pure Water Analytics representative for local sourcing.

► www.mt.com/2301Na



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Visit for more information

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