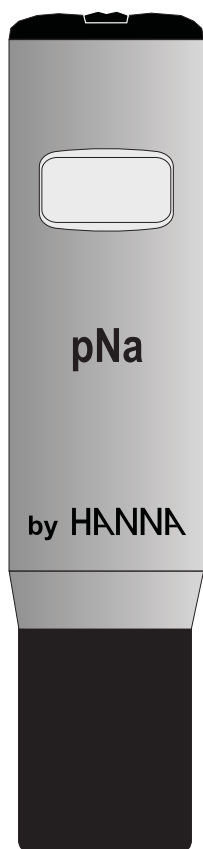


# pNa

HI 98202  
Soft Water Tester



## GENERAL INFORMATION

The pNa tester utilizes a sodium ion-selective electrode to determine the activity of free sodium in solution ( $pNa = -\log a_{Na}$ ).

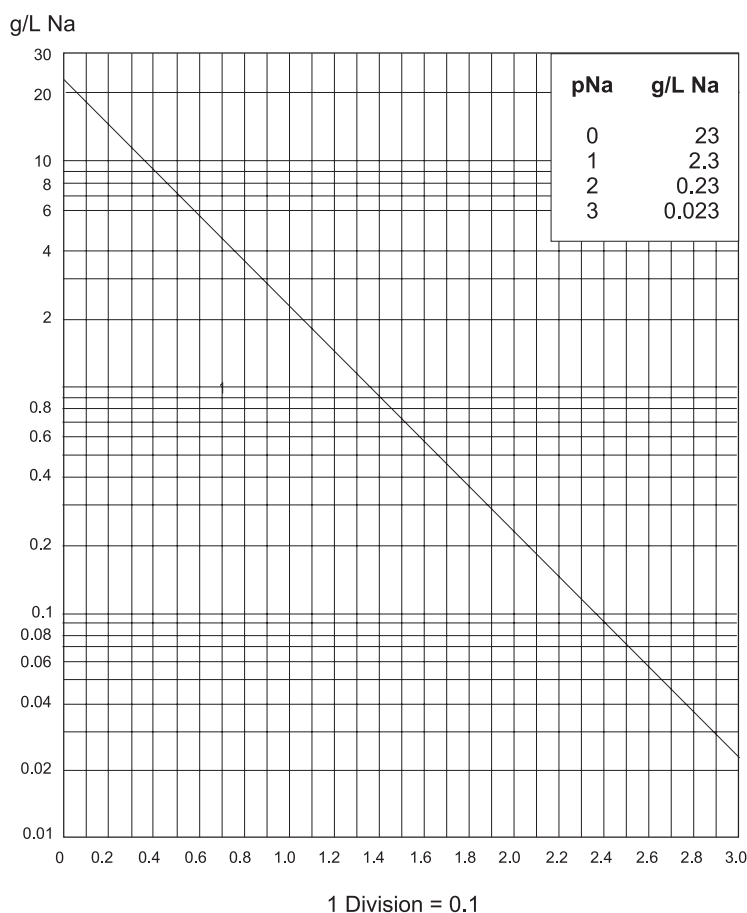
In dilute solutions, the activity coefficient is nearly 1 and in such solutions pNa is a good indicator of the sodium ion concentration. The relationship between the pNa scale and the g/L Na<sup>+</sup> scale is explained in the chart below.

A double junction reference is used to ensure a highly stable reading. If you suspect that the calibration has drifted, you can recalibrate the meter by using a solution of known concentration. Adjust the reading with the calibration trimmer.

## HOW TO USE THE CHART

- Locate the pNa reading on the horizontal axis of the chart.
- Move vertically upwards to intersect with the 45° line.
- Move horizontally and read the g/L Na value.

E.g. pNa = 1.4  
g/L = 0.9



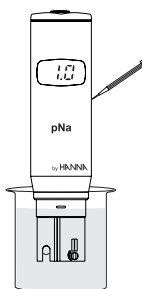
## OPERATION

- Remove the protective cap and turn the **pNa** on, by sliding the ON/OFF switch located on the top of the meter.
- Immerse it into the solution to be tested without exceeding the maximum immersion level.
- Stir gently and wait for stable reading.
- Measurements are displayed in pNa unit. Use the chart included in this instruction manual to calculate g/L value.
- After use, switch the meter off, rinse the electrode with water to minimize contamination and replace the protective cap.
- Large differences in pNa readings ( $\pm 0.5$  pNa) could be due to a dry electrode or lack in calibration.
- To improve the performance of your tester, immerse it in **HI 7080** solution up to the maximum immersion level at least once a week.



## CALIBRATION

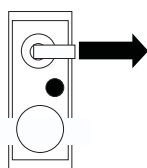
- Immerse the tester in **HI 7080** calibration solution, without exceeding the maximum immersion level.
- Allow the reading to stabilize and with a small screwdriver turn the calibration trimmer until the display shows "1.0" pNa.



## MAINTENANCE

In case of erroneous reading even after an accurate calibration, the reference junction can be contaminated or clogged.

Pull out 2 mm (1/8") of the cloth junction to renew the electrode reference (it is recommended to cut the cloth leaving always at least 2 mm - 1/8" over the reference compartment) and re-calibrate the meter.



The cloth junction can be pulled out approximately 20 times. After that, the electrode should be replaced.

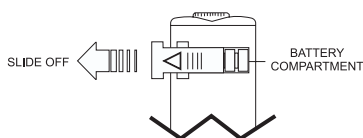
## ELECTRODE REPLACEMENT

For replacing the electrode contact your Dealer or the nearest Hanna Service Center.

## BATTERY REPLACEMENT

If display fades or the **pNa** switches off, the batteries must be replaced.

Slide off the battery compartment cover and replace all four 1.5V alkaline batteries while paying attention to the correct polarity.



Batteries should only be replaced in a non-hazardous area using the battery type specified in this instruction manual.

## SPECIFICATIONS

Range	0.0 to 3.0 pNa (23 to 0.023 g/L Na <sup>+</sup> )
Resolution	0.1 pNa
Accuracy (@20°C/68°F)	$\pm 0.2$ pNa
Typical EMC Deviation	$\pm 0.1$ pNa
Calibration	Manual, 1 point
Environment	0 to 50°C (32 to 122°F); RH max 95% RH
Battery Type	4 x 1.5V alkaline
Battery Life	approx. 800 hours of use
Dimensions	175 x 41 x 23 mm (6.9 x 1.6 x 0.9")
Weight	95 g (3.4 oz.)

## ACCESSORIES

HI 7080L	2.3 g/L Na <sup>+</sup> solution, 500 mL bottle
HI 7080M	2.3 g/L Na <sup>+</sup> solution, 230 mL bottle
HI 7061M	Cleaning solution, 230 mL bottle
HI 73202	Spare electrode
HI 731326	Calibration screwdriver (20 pcs)

## WARRANTY

These meters are guaranteed for one year against defects in workmanship and materials when used for their intended purpose and maintained according to instructions. Probes are guaranteed for six months. This warranty is limited to repair or replacement free of charge. Damages due to accident, misuse, tampering or lack of prescribed maintenance are not covered. If service is required, contact the dealer from whom you purchased the instrument. If under warranty, report the model number, date of purchase, serial number and the nature of the failure. If the repair is not covered by the warranty, you will be notified of the charges incurred. If the instrument is to be returned to Hanna Instruments, first obtain a Returned Goods Authorization Number from the Customer Service department and then send it with shipment costs prepaid. When shipping any instrument, make sure it is properly packaged for complete protection.

The pNa is in compliance with the CE directives.