

Method Z210L – Nitrate NO₃ Low range

Specification

Description:	Test for determining the content of nitrate in marine and fresh water
Range:	0,5 - 30 mg/l
Resolution:	0,5 mg/l
Wavelength:	520 nm

Reagent set

Product Code	Description	List of components
8210	Set of reagents for method Z210L, Nitrate NO ₃ Low range (reagents for approx. 85 tests)	<ul style="list-style-type: none"> ✓ Reagent NO₃-1 ✓ Reagent NO₃-3 ✓ powder Reagent NO₃-2 ✓ spatula

Performing the measurement

1. Select the **Z210L Nitrate NO₃ Low range** method (Methods → Select method → Z210L Nitrate NO₃ Low range).
How to select the method, see [8.1 Choosing method](#).

NOTE:

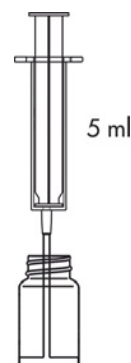
*It is recommended to use the GUIDE system. It will provide you with step-by step basic instruction how to perform measurement and a timer with beeper to count down reaction time. To enable this function press the button **GUIDE**.*

2. Rinse the vial and the syringe three times with the tested water.

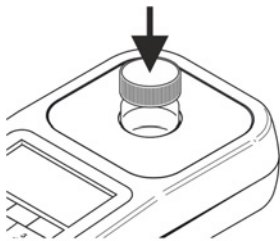
Take exactly 5 ml of the tested water with the syringe and pour into the vial.

NOTE:

Make sure no air bubbles are present in the syringe. Trapped air bubbles can affect accuracy of the measurement.



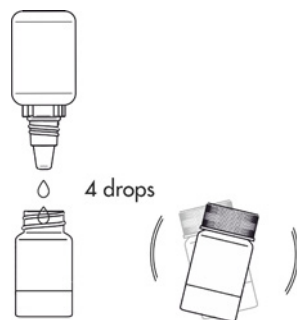
- Insert the vial into the round vial holder and press the **ZERO** key. The display will show **"-0.0-"**, which means the device is ready for measurement.



26 08 20		12:45	
NO ₃	Z210L Nitrate NO3 H	tag 1	
Measuring ...			
ZERO	MEAS	GUIDE	

26 08 20		12:45	
NO ₃	Z210L Nitrate NO3	tag 1	
-0.0- mg/l			
ZERO	MEAS	GUIDE	

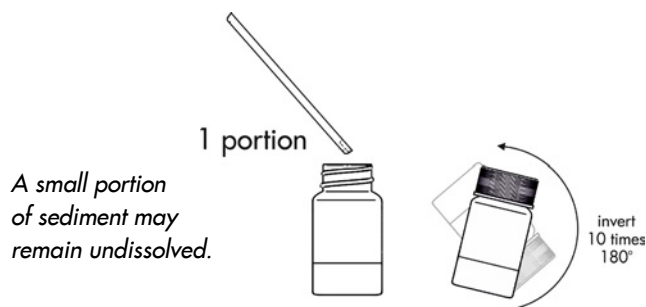
- Add 4 drops of **Reagent NO₃-1**, replace the cap and shake gently to mix.



- Wait 30 seconds before adding Reagent NO₃-2



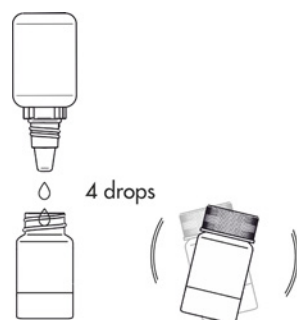
- Add 1 portion of **powder Reagent NO₃-2** with the spatula. Replace the cap and invert 10 times to mix.



- Wait 30 seconds before adding Reagent NO₃-3.



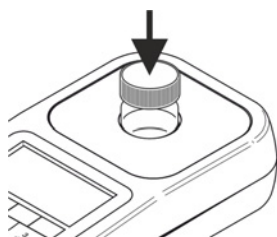
- Add 4 drops of **Reagent NO₃-3** and mix.



- Wait **5 minutes** before taking the measurement. Do not stir or shake the sample. If case of air bubbles present, gently tap the vial to remove them from the sample. Some sediment may be visible in the solution.



10. After **5 minutes** insert the vial into round vial holder and press the **MEAS** key to take a measurement. The result - **the concentration of nitrate** - is displayed in **mg/l (ppm)**.



26 08 20		12:50	
NO ₃	Z210L Nitrate NO3	tag 1	
Measuring ...			
ZERO	MEAS	GUIDE	

26 08 20		12:50	
NO ₃	Z210L Nitrate NO3	tag 1	
3.5 mg/l			
ZERO	MEAS	GUIDE	REC

There are also available alternative units to display: **ppm** and **N mg/l**. They can be accessed by pressing the **left / right** cursors on the keyboard.

Potential interferences

too high or too low temperature	maintain the optimal temperature 25°C
nitrite content – above 0,5 ppm	may cause falsely high readings
the presence of metal ions: iron (Fe), antimony (Sb), bismuth (Bi), caesium (Ce), chromium (Cr), gold (Au), silver (Ag) and mercury (Hg)	may cause falsely low readings
strongly oxidizing or reducing agents, organic ammonium compounds such as urea or amines	may interfere with a NO ₃ measurement