

**Nitrite VHR L****M271****25 - 2500 mg/L NO<sub>2</sub><sup>-</sup>****Ferrous Sulfate Method****Instrument specific information**

The test can be performed on the following devices. In addition, the required cuvette and the absorption range of the photometer are indicated.

<b>Instrument Type</b>	<b>Cuvette</b>	<b>λ</b>	<b>Measuring Range</b>
MD 600, MD 610, MD 640	ø 24 mm	580 nm	25 - 2500 mg/L NO <sub>2</sub> <sup>-</sup>
XD 7000, XD 7500	ø 24 mm	585 nm	25 - 2500 mg/L NO <sub>2</sub> <sup>-</sup>

**Material**

Required material (partly optional):

<b>Reagents</b>	<b>Packaging Unit</b>	<b>Part Number</b>
Nitrite VHR L, 500 ml	500 mL	471170
Nitrite VHR L, 500 ml, Set	500 mL	471160

The following accessories are required.

<b>Accessories</b>	<b>Packaging Unit</b>	<b>Part Number</b>
Pipette, 1000 µl	1 pc.	365045
Pipette tips, 0,1-1 ml (white), 1000 pc.	1 pc.	419073

**Application List**

- Cooling Water

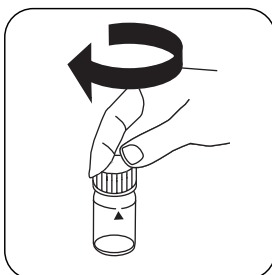


## Determination of Nitrite VHR L

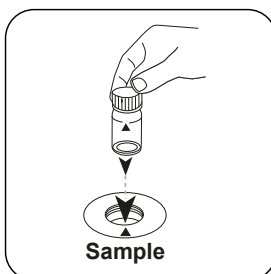
Select the method on the device.



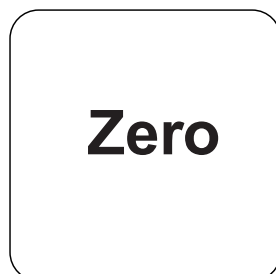
Place **10 mL Nitrite VHR L solution** in the sample cuvette.



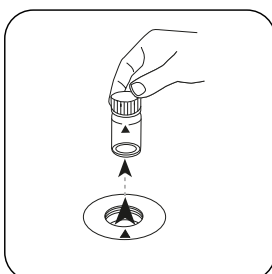
Close vial(s).



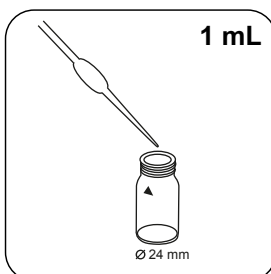
Place **sample vial** in the sample chamber. Pay attention to the positioning.



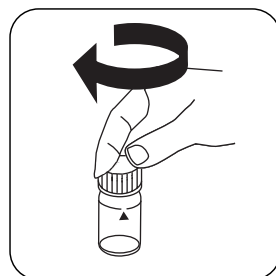
Press the **ZERO** button.



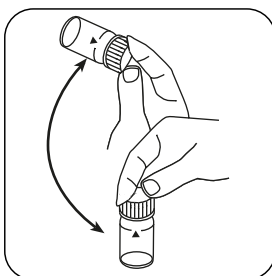
Remove the vial from the sample chamber.



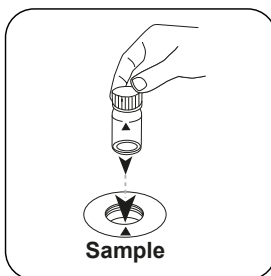
Add **1 mL sample**.



Close vial(s).



Invert several times to mix the contents (1-2 times).



Place **sample vial** in the sample chamber. Pay attention to the positioning.



# Test

Press the **TEST** (XD:  
**START**) button.

The result in mg/L Nitrite appears on the display.

## Chemical Method

Ferrous Sulfate Method

### Calibration function for 3rd-party photometers

$$\text{Conc.} = a + b \cdot \text{Abs} + c \cdot \text{Abs}^2 + d \cdot \text{Abs}^3 + e \cdot \text{Abs}^4 + f \cdot \text{Abs}^5$$

	ø 24 mm	□ 10 mm
a	$1.45432 \cdot 10^{+0}$	$1.45432 \cdot 10^{+1}$
b	$1.22994 \cdot 10^{+3}$	$2.64437 \cdot 10^{+3}$
c		
d		
e		
f		

### Method Validation

Limit of Detection	8.77 mg/L
Limit of Quantification	26.31 mg/L
End of Measuring Range	2500 mg/L
Sensitivity	1235.02 mg/L / Abs
Confidence Intervall	13.11 mg/L
Standard Deviation	5.42 mg/L
Variation Coefficient	0.43 %