

TECHNICAL CHARACTERISTICS

- Response time: < 60 s
- Working Temperature: 5-50°C
- Minimum required volume : 0.5 mL
- ISAB: No needed*
- Specifications:

	Cl^-
Slope (mV/dec)	-54 ± 5
Linear range (mg/L)	1.3 to 35000
Linear range (mol/L)	3.7×10^{-5} to 1
pH range	2 to 12.5
Main interferences¹ (log Kij)	Chloride electrode will be irreversibly damaged if immersed in solutions containing I^- ions. Chloride electrode will not give reliable readings if more than a trace of Ag or S ions are present in the solution.

¹There is a high interference from Bromide and Cyanide ions. Chloride electrode only give reliable results if these ions are present in very low concentrations compared to chloride ions.

ADDITIONAL EQUIPMENT

- NT ION METER or an equivalent meter: pH/mV-meter with resolution of 0.1mV.
- Reference electrode (Code: MRX11) or an equivalent.

REAGENTS

- Deionized water, to prepare solutions and rinse the probe.
- Standard and conditioning solutions

*For highly accurate measurements, when the uncertainty required must be very low, we recommended the use of ISAB.

PREPARATION AND USE OF CNT ISE SINGLE

Before using the CNT ISE SINGLE, it is recommended to read the instructions of your meter.

Condition the CNT ISE in a solution of the target ion of 1000ppm at least for 10 minutes¹ before use.

(1) If the electrode is new, has been prolonged time without use, or has been in contact with interference containing samples, condition time is recommended to be 8 hours or until stable potential reading.

If target concentration is lower than 100ppm, is recommended a second conditioning process in 100ppm solution at least for 10 minutes.

1. Plug the BNC terminal of the CNT ISE to the meter.
2. Remove the protection cap from the sensing area.
3. Calibrate the electrode.^{2,3}

(2) Regarding the complexity of the sample matrix and some different factors, the analytical procedure could be direct calibration or different analytical techniques, such as the standard addition, etc.

3) To calibrate the electrode must have a reference electrode connected to the meter.

4. Rinse with DI water and dry the outer body with a clean tissue.
5. Measure the sample.
6. Rinse with DI water and dry the outer body of the probe between each sample measure.
7. Keep dry and clean with the protective cap.

✓ Presence of solid particles in suspension and turbid solutions do not affect to the overall performance of the electrode.

RECOMENDATIONS

- ✓ Keep constant the same conditions of temperature, stirring, both in samples and standards.
- ✓ Follow the instructions for better conservation of the electrode.
- ✓ Great care has to be taken to do not damage the tip. The electrode can be irreversibly damaged if this part is hit or grated.

GUARANTY

Electrodes are guaranteed of any manufacturing defect.

NT Sensors will replace without additional cost the Electrodes which, after being revised by its technical post-service have been considered as "defect from origin".

The Guaranty of the electrodes does not cover the defects caused by:

- inadequate use,
- the usual aging of the electrode,
- the logic premature aging caused by certain samples,
- the damaged caused by accident.

The guaranty is valid through a period of 6 months.

For more information visit NT Sensors user guide on-line.

**CNT_ISE SINGLE:
ION SELECTIVE ELECTRODE**



BNC connector with cable

*PVC body
(L = 15cm, ϕ = 12mm)*

Sensing area

CNT_ISE S035

***Electrode to determine ions (Cl⁻) in
aqueous solutions***

Simply and fast

***Minimum volume consumption of
reagents and samples***

***Does not require any special
maintenance***

Nsensors

Nanotechnology Sensors

Chloride Ions Electrode (Cl⁻)

CNT_ISE S035

MAINTENANCE AND STORAGE

- ✓ The CNT ISE SINGLE does not require maintenance due to not contain internal liquid solutions.
- ✓ Place the protective cap when not use the electrode. Do not leave the sensing area in contact with air/atmosphere for longer time than necessary.
- ✓ Storage at temperatures below 50°C.
- ✓ Storage in a dry, cool place avoiding the direct contact with the sunlight.

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