

4 FLUORIDE METER

F-10Z

Solid Membrane Type, Fluoride Electrode Method



FE-1206

Outline

Fluoride Ion Electrode measures Density of Free Fluoride Ion in Water Solution using single Crystal of Lanthanum Fluoride (LaF₃) Membrane as sensitive Membrane. Total Fluoride Density such as Complex of Fluoride compound can not be measured.

This Meter is used in the Process of Semiconductor manufacturing Plant, Glass manufacturing Fluoride Resin manufacturing Plant, and also in the Field of Water Quality Control of Plant effluent and Water Supply System, etc.

Characteristic

Fluoride Ion Electrode With Automatic Thermostat System

Semiconductor Temperature Element automatically controls difference by Temperature Change.

Highly Sensitive Fluoride Ion Electrode FE-1206

Possible to measure wide range from low to high Density. Possible to measure 0.1~1999mg/ℓ linearly.

mV Mode

mV Mode makes it possible to measure Generation of Electrode and to show Electrode is good or not.

Measuring Mode Shifts Automatically

Minimum display of 1mg/ℓ at measuring Range 100~2000mg/ℓ
Minimum display of 0.1mg/ℓ at less Than 99.9mg/ℓ

Water-Proofed (IP67)

Pb Free Circuit Board

With Back Light

With Memory Function

Specifications

Meter

Product Name/Model	Fluoride Ion Meter : F-10Z
Measuring Method	Ion Electrode Method(Lanthanum Fluoride Membrane)
Measuring Range	F ⁻ : 0~2000mg/ℓ (F ⁻ : Density of Chloride Ion) mV : -1000~1000mV(Chloride Ion Electrode Power)
Resolution	F ⁻ : 0.1mg/ℓ (at 0.0~99.9mg/ℓ) 1mg/ℓ (at 100~2000mg/ℓ) mV : 1mV
Repeatability	F ⁻ : within ±2mg/ℓ (0.0~99.9mg/ℓ) within ±5mg/ℓ (100~2000mg/ℓ) mV : within ±2mV
Display	LCD digital F ⁻ /mV : LCD 4digits (upper site) Memory : LCD 2digits
Data Memory	Max. 30data
Power Supply	DC4.5V(LR03 battery×3) Auto power off system (30min.)
Outer Dimensions	70(W)×170(D)×36(H)mm
Weight	Approx. 290g

Fluoride Ion electrode

Product Name/Model	Fluoride Ion Electrode : FE-1206
Measuring Method	Ion Electrode Method(Lanthanum Fluoride Membrane)
Cable length	1m standard
Outer dimensions & Weight	φ18×155mm Approx. 120g
Selectivity	Non-coexistence OH ⁻ =10 ¹ HPO ₄ ²⁻ , HCO ₃ ⁻ = 10 ³ (pH7~8) Cl ⁻ , Br ⁻ , I ⁻ , NO ₃ ⁻ , SO ₄ ²⁻ , S ₂ O ₃ ²⁻ =10 ⁵

Standard Components

Fluoride Ion Meter, Alkaline Battery : LR03×3(Already set in the Meter Body)

Fluoride Ion Electrode : FE-1206

Fluoride Ion std. Solution 2mg/ℓ : 50mℓ, Fluoride Ion std. Solution 200mg/ℓ : 50mℓ,
Electrode inner Liquid(0.35mol K₂SO₄) : 50mℓ,

Ion Strength Adjustment Buffer(masking : ISAB) : 50mℓ,

Beaker : 50mℓ, Pipette(long), Syringe for inner Liquid, Carrying Case

Preparation⇒	Calibration⇒	Measurement
Prepare 50mℓ of standard solution 2mg/ℓ & 200mg/ℓ respectively. Add the ISAB previously.	Make calibration by putting the electrode into each standard solution.	Add ISAB 1mℓ into the sample liquid 50mℓ, and after stirring, it set the electrode. After about 1~2minutes, read display.
		ISAB : Ion Strength Adjustment Buffer Solution