

T9006

Fluoride Water Quality Online Analyzer

Product Overview:

The fluoride online monitor employs the national standard method for determining fluoride in water — the fluoride reagent spectrophotometric method. This instrument is primarily used for monitoring surface water, groundwater, and industrial wastewater, with a key focus on monitoring drinking, surface, and groundwater in areas with

high incidence of dental caries and skeletal fluorosis. The analyzer can operate automatically and continuously without long-term manual intervention based on field settings. It is widely applicable in scenarios such as industrial pollution source discharge wastewater and industrial process wastewater. Depending on the complexity of the on-site testing conditions, a corresponding pre-treatment system can be optionally configured to ensure reliable testing processes and accurate results, fully meeting the needs of various field applications.

Product Principle:



In an acetate buffer medium at pH 4.1, fluoride ions react with fluoride reagent and lanthanum nitrate to form a blue ternary complex. The intensity of the color is proportional to the fluoride ion concentration, allowing for quantitative determination of fluoride (F-) at a wavelength of 620 nm.

Technical Parameters:

No.	Specification Name	Technical Specification Parameter
1	Test Method	Fluoride Reagent Spectrophotometry
2	Measuring Range	0~20mg/L (Segment measurement, expandable)
3	Lower Detection Limit	0.05
4	Resolution	0.001
5	Accuracy	$\pm 10\%$ or $\pm 0.1\text{mg/L}$ (whichever is greater)
6	Repeatability	10% or 0.1mg/L (whichever is greater)
7	Zero Drift	$\pm 0.05\text{mg/L}$
8	Span Drift	$\pm 10\%$
9	Measurement Cycle	Less than 40min
10	Sampling Cycle	Time interval (adjustable), on-the-hour, or triggered measurement mode, configurable
11	Calibration Cycle	Automatic calibration (1~99 days adjustable); Manual calibration configurable based on actual water sample
12	Maintenance Cycle	Maintenance interval >1 month; each session approx. 30min
13	Human-Machine Operation	Touchscreen display and command input
14	Self-check & Protection	Self-diagnosis of instrument status; data retention after abnormality or power failure; automatic clearing of residual reactants and resumption of operation after abnormal reset or power restoration
15	Data Storage	5-year data storage capacity
16	Input Interface	Digital input (Switch)
17	Output Interface	1x RS232 output, 1x RS485 output, 2x 4~20mA analog outputs
18	Operating Environment	Indoor use; recommended temperature $5\sim 28^{\circ}\text{C}$; humidity $\leq 90\%$ (non-condensing)
19	Power Supply	$\text{AC}220 \pm 10\% \text{ V}$
20	Frequency	$50 \pm 0.5 \text{ Hz}$

21	Power Consumption	$\leq 150\text{W}$ (excluding sampling pump)
22	Dimensions	520mm (H) x 370mm (W) x 265mm (D)