

## T9015W type

### Coliform bacteria water quality online monitor

#### Application area

- ✧ Surface water
- ✧ Groundwater
- ✧ Drinking water source
- ✧ Emissions from livestock and poultry industry
- ✧ Emissions from medical and pharmaceutical biological processes
- ✧ Agricultural and urban wastewater



#### Instrument features

- ✧ Using the fluorescent enzyme substrate method, the water sample has strong adaptability;
- ✧ This device can be used for multiple purposes, and the indicators of "coliform bacteria, fecal coliform bacteria, and Escherichia coli" can be switched;
- ✧ Non-disposable reagents are used, which is cost-effective and supports a maintenance-free period of 15 days. 、
- ✧ It has negative quality control and can automatically determine whether it is in a sterile state;
- ✧ It can customize the "reagent bag-packed solid powder automatic liquid mixing" function of reagent A;
- ✧ It has an automatic water sample replacement function, reducing the influence of the previous water sample concentration and the residual is less than 0.001%;
- ✧ It has a light source temperature control function to ensure the

stability of the light source and reduce the interference of temperature on the light source;

✧ Before and after the equipment starts measurement, it automatically cleans with clean water to ensure that the system is free from contamination;

✧ Before and after the detection, the pipeline is sealed with liquid, and in combination with the sealed detection system, the interference from the environment on the system is eliminated;

## Measurement principle

### Fluorescent enzyme substrate method

one Coliform bacteria water quality online monitor

1. Measurement principle: Fluorescent enzyme substrate method;
2. Measurement range: 102cfu/L ~ 1012cfu/L (customizable from 10cfu/L to 1012/L);
3. Measurement period: 4 to 16 hours;
4. Sampling volume: 10ml;
5. Accuracy:  $\pm 10\%$ ;
6. Zero point calibration: The equipment automatically corrects the fluorescence baseline function, with a calibration range of 5%;
7. Detection limit: 10mL (customizable to 100mL);
8. Negative control:  $\geq 1$  day, can be set according to actual circumstances;
9. Dynamic flow path diagram: When the equipment is in measurement mode, it has the function of simulating actual measurement actions displayed in the flow chart: description of operation process steps, percentage of process progress display functions, etc.;
10. Key components use imported valve groups to form a unique flow path, ensuring the monitoring performance of the equipment;
11. Quantitative method: Use injection pump for quantification, with high measurement accuracy;
12. Quality control function: Includes instrument monitoring, precision, accuracy, correlation functions, mainly for the verification of instrument testing performance;
13. Pipeline disinfection: Before and after measurement, the equipment automatically disinfects with disinfectant to ensure no bacterial residue in the system;
14. The instrument internally uses a sterilization ultraviolet lamp to disinfect the sterile distilled water in the pipeline;
15. The instrument internally has real-time concentration, temperature, etc. trend analysis graphs;
16. Has power-on self-check, liquid level leak detection function;
17. Light source constant temperature: Has light source constant temperature function, temperature can be set; ensures the stability of the light source, reduces the interference of temperature on the light source;

18. Communication port: RS-232/485, RJ45 and (4-20) mA output;
19. Control signal: 2 switch output channels and 2 switch input channels;
20. Environmental requirements: Moisture-proof, dust-proof, temperature: 5 to 33°C;
21. Use 10-inch TFT, Cortex-A53, 4-core CPU as the core, high-performance embedded integrated touch screen;
22. Other aspects: Has the function of recording the instrument operation process log; can store at least one year of original data and operation logs; instrument abnormal alarm (including fault alarm, over-range alarm, over-limit alarm, reagent shortage alarm, etc.); power-off data is automatically saved; TFT true-color liquid crystal touch screen display and command input; abnormal reset and power-off recovery to normal working state after power-on; instrument status (such as measurement, idle, fault, maintenance, etc.) display function; the instrument has three-level management authority.