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Automatic multi-parameter water quality analyzer YKHMM-N

Product Overview:

The traditional analysis of COD, total phosphorus, total nitrogen, ammonia nitrogen, residual chlorine, total chlorine, hexavalent chromium, nitrite, heavy metals and other photometric detection items is not only time-consuming, but also complicated and cumbersome to detect, and requires high skills of operators. It is difficult for water sample detection and recording to meet the analysis and testing needs of large quantities of samples. The fully automatic multi-parameter water quality analyzer is used for the automatic digestion and determination process of various water qualities, which automates the cumbersome and complex water quality analysis, unattended analysis, batch processing of water samples, freeing the hands of the testers, and providing accurate water quality analysis. It can be arbitrarily combined according to the needs of the test items, and meets the requirements of the national standard chemical oxygen demand determination rapid digestion spectrophotometry, Nessler reagent spectrophotometry, alkaline potassium persulfate digestion ultraviolet spectrophotometry, and ammonium molybdate spectrophotometry.





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Instrument features:

1. The analysis system consists of four units, namely, automatic three-dimensional sampling unit, automatic digestion unit, high-precision spectrophotometer unit, and automatic control display unit. It has fault detection alarm function and memory function. After power failure, restarting the instrument can determine the unfinished analysis status and continue to complete the analysis, increasing the safety of system operation.
2. The operation setting is not less than 7 inches, automatic analysis, and the process is simple. The sample information is input into the control unit, and the automatic sampler automatically injects samples into the digestion and analysis unit. It has a sample addition function, and samples can be added at any time. The pipeline can be automatically cleaned during each measurement interval, ensuring the accuracy of the measurement results and the pollution-free sampling.
3. The instrument is equipped with a digester and cooling system. The analyst only needs to accurately extract the water sample and set the information of the sample to be tested on the instrument interface to avoid editing the sample information individually, improve work efficiency, and automatically measure the remaining steps, automatically digest, automatically cool, automatically discharge waste, and automatically generate and save reports. The closed structure design and automatic waste liquid discharge program avoid pollution to the environment during the test process.
4. No sample preparation process is required and pre-made reagents are used, which can greatly shorten the preparation time of reagents.
5. The instrument can digest 16 samples at the same time and has a fast water circulation cooling system, which improves the efficiency of analysis and testing. The analysis system adopts a fully automatic high-precision spectrophotometer with high wavelength accuracy and good stability. Corrosion-resistant and long-life design: It can repeatedly transfer 98% concentrated sulfuric acid and various corrosive organic and inorganic liquids such as strong alkali and organic solvents for a long time (corrosion-resistant DuPont polytetrafluoroethylene pipes, patented technology for remote liquid transfer, greatly extending the life of the precision injection pump).
6. Wide measurement range, strong anti-interference ability, the instrument has automatic sample dilution function (dilution method needs to be confirmed), automatic calibration function, and higher reliability and accuracy.
7. IoT cloud data upload function, Bluetooth transmission, USB interface, wifi module, support for cloud storage, WeChat applet, greatly facilitate the customer's application scenarios.

Instrument parameters:

Display: 7-inch color touch screen

Wavelength range: 190-1100nm

Photometric range: -0.3-3A



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Wavelength repeatability: $\pm 0.1\text{nm}$

Wavelength accuracy: $\pm 0.1\text{nm}$ (at 656.1nm), $\pm 0.3\text{nm}$ full area

Stray light: 0.05T% (220nm, 360nm)

Optical stability: $\leq 0.001\text{A}$

Light source: imported deuterium lamp, imported tungsten lamp

Printer: built-in thermal printer

Data communication: USB interface, RS-232 serial port

Light source life: 100,000 hours

Extended functions: photometric measurement, quantitative analysis, standard curve method, coefficient method

Colorimetric method: cuvette/colorimetric tube





Instrument power supply: AC220V/50Hz

Working environment: 5-40°C, $\leq 85\%$ non-condensing

Water quality testing directory:

Test Items	Measuring range	Test method
COD (chemical oxygen demand quantity)	5-10000mg/L	Rapid digestion by spectrophotometry
ammonia nitrogen	0-100mg/L	Naer's reagent
total phosphorus	0-15mg/L	Ammonium molybdate spectrophotometry
total nitrogen	0-10mg/L	UV spectrophotometric digestion by alkaline potassium persulfate
suspended matter	0-100/100-1000/1000-4000mg/L	direct colorimetry
residual chlorine	0-15mg/L	spectrophotography
Total chlorine	0-30mg/L	spectrophotography
chlorine dioxide	0.05-30mg/L	spectrophotography
Air formaldehyde	0.05-1.5mg/m ³	Acetylacetone spectrophotometry
Formaldehyde in water	0.05-10mg/L	Acetylacetone spectrophotometry
Textiles formaldehyde	0.2-30mg/kg	Acetylacetone spectrophotometry



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turbidity	0-1000(NTU)	The scattering ratio turbidity method
tone	0.001-500(PCU)	Platinum cobalt colorimetric method
Beer color	0-50(EBC)	photoelectric colorimetry
Heavy metal hexavalent chromium	010mg/L(piecewise)	Spectrophotometry of diphenyl carbacyl dihydrazide
nitrite	0-0.2mg/L	Naphthalene hydrochloride ethylenediamine
nitrite nitrogen	0.5-1.0mg/L	Naphthalene hydrochloride ethylenediamine
nitrate nitrogen	0.5-10mg/L	Phenolic disonate photometry
nitrate	0.5-10mg/L	Phenolic disonate photometry
Permanganate, and the salt index	0.2-10.0mg/L	Potassium permanganate oxidation spectrophotometry
sulfate	5-100mg/L	Barium chromate spectrophotometry
phosphate	0.05-20mg/L	Ammonium molybdate spectrophotometry
ferri ion	0.05-3mg/L	Phanthroline spectrophotometry
copper ion	0.05-3mg/L	Two base dithiocarbamylate sodium spectrophotometric method
Heavy metal lead	0.05-4.00mg/L	Of cresyl orange spectrophotometry
prussiate	0.0-1.0mg/L	The barbiturate spectrophotometry of isopicotinate
arsenic	0.05-3.00mg/L	Arsenic-antimony-molybdenum blue spectrophotometry
aluminium	0.0-1.0mg/L	Aluminum reagent spectrophotometry
zinc	0.01-5.0mg/L	Zinc reagent spectrophotometry
manganese	0.05 - 5.0mg/L	Potassium periodate spectrophotometry
Heavy metal cadmium	0-1mg/L	Spectrophotometry of the cadmium reagent
Heavy metal nickel	0.05 - 5mg/L	Diadione oximes by spectrophotometry
sulfide	0.0-1.0mg/L	Methylene blue spectrophotometer
Volatil	0.1 - 3.0mg/L	4-aminoantipyrine spectrophotometer
chlorid	0.0-5.0mg/L	Silver salt photometry
fluoride	0.02.0mg/L	A Fluoride Reagent spectrophotometer
Hardness in water	0-50mg/L	Acid chromium-based lanthanum K-spectrophotometric method



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Main Interface



Menu



Sample injection configuration



Sample analysis