

PCM200-Cr6+Hexavalent Chromium Water Quality Online Automatic Monitor

Principle

Diphenylcarbohydrazide spectrophotometry. In an acidic solution, hexavalent chromium in the water sample reacts with diphenylcarbohydrazide to generate a purple-red compound. This compound has a strong absorption peak at a specific wavelength, and its absorbance is proportional to the concentration of hexavalent chromium in the water sample. By measuring its absorbance, the content of hexavalent chromium in the water sample can be calculated.



Features

- ◇ The ten-way valve with sapphire valve core has high wear resistance, strong acid and alkali resistance, organic solvent resistance, long service life and high stability;
- ◇ The specially designed reference method is adopted, and the slight displacement and slight pollution of the digestion tank will not affect the measurement value;
- ◇ It has the function of waste liquid separation to achieve the separate discharge of high-concentration reaction waste liquid and low-concentration cleaning waste liquid;
- ◇ It has the function of dynamic dilution, which can automatically adjust the dilution multiple according to the range set on site
- ◇ It has built-in quality control functions such as spike recovery, blank test, standard sample verification, zero point verification, span verification, parallel sample test, etc., and can realize automatic, manual, remote and other ways to start the quality control function;
- ◇ It has the function of automatic fault diagnosis and abnormal information upload and recording, such as component failure, over-range alarm, over-standard alarm, reagent shortage alarm and other information;
- ◇ It has overheating protection: the heating temperature is too high, and the heater automatically cuts off the power;
- ◇ After abnormal reset and power failure, the instrument automatically discharges the residual reactants in the instrument and automatically returns to the initial working state. It has a power-on alarm function. When the power is turned on again after a power failure, the instrument will generate an alarm message;
- ◇ It has the function of recording the process log of the analytical instrument, measuring data and alarm information. It records the data once every hour and can store data for more than 5 years. It can also export data quickly to a USB flash drive.
- ◇ Has three levels of management authority.

Application

- ◇ Online monitoring of Cr6+ concentration in drinking water and surface water.
- ◇ Online monitoring of Cr6+ concentration in municipal sewage inlet and outlet, pollution source discharge outlet, and industrial wastewater outlet.

Technical Specification

Range	0-5mg/L (Customizable)
Indication error	$\leq \pm 10\%$
Lower limit of quantification	$\leq 0.01\text{mg/L}$
Repeatability	$\leq 2\%$
Resolution	0.0001mg/L (Decimal places can be set from 2 to 4 digits)
Display	7 inch display
Measurement mode	Continuous mode, periodic mode (1h-30d adjustable), fixed-point mode, controlled mode, manual mode optional
Calibration mode	Manual calibration and automatic calibration modes
Maintenance cycle	Usually once a month
Power supply	220V \pm 22V,50Hz \pm 0.5Hz
Output	4-20mA output
Communication mode	MODBUS RS-232/RS-485
Environmental conditions	Indoor temperature with adjustable temperature, recommended temperature: +5-40°C; humidity $\leq 85\%$ (no condensation)
Size	302*271*462mm (L*W*H)