

WAFE2001 is an analyzer specific for monitoring iron in water samples.

The analyzer uses the spectrophotometry with o-phenanthroline colorimetric reagent. The spectral properties of o-phenanthroline and its complexes with iron (Fe^{2+}) ions make it an excellent reagent for the detection of iron in aqueous solutions.

This method requires all Fe^{3+} ions to be reduced to Fe^{2+} . These ions are reduced using hydroxylamine hydrochloride. Fe^{2+} iron ions then react with o-phenanthroline to form a stable orange red complex. Using UV-VIS spectrophotometer the concentration of the orange red colour is proportional to the concentration of iron present in the water body.



Applications

- Mineral processing wastewater
- Smelting iron and steel processing
- Mechanical processing
- Electroplating industry

Features

High reliability, low maintenance

- Core components are imported, high reliability, long lifetime, suitable for long time online monitoring
- All part contact with liquid will be particularly tested to ensure a long service life
- Specially designed flow path to prevent blocking

Accurate measurement, wide application scope

- Photoelectric measurement method, accurate sampling, low sample injection error
- Automatic chromaticity and turbidity compensation algorithm give full consideration to the situation of actual water samples, real and reliable monitoring results.
- Unique hybrid technology or bubbles agitation ensures thorough mixing of samples and reagents

Safe use, efficient analysis

- When a reagent leaks automatic there will be an alarm and reminders for maintenance.
- Equipment has self-diagnosis function, if there is any defects and alarm will be alerted and display on screen.

Technical Specification

Specification	
Method	O-phenanthroline Spectrophotometry Method
Measure range	0~2/5mg/l (customizable)
Accuracy	±10%
Repeatability	±5%
Maintenance	>2hr/month
Reagent	1 set reagents: 250 measurements (can be customized)
Interface	Analog output: 1 x 4-20mA (expandable to 2) max load 500Ω Analog input: 1 x 4-20mA (expandable to 2) 0-5V input Relay Output: 4 (configuration is flexible) RS485/RS232/USB (optional)
Dimensions	1400 (h) x 405 (w) x 500 (d) mm
Ambient conditions	Temperature: 5~40°C
Power Supply	AC230V, 50 Hz
Power Consumption	200 W (not including pump)
Weight	75 kg

