



Recorder



Flow



Pressure



Temp



Analyzer



Level

## Datasheet

# Water Quality On-line Total Phosphorus Analyzer

# Supmea<sup>®</sup>

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**Datasheet****Water Quality On-line Total Phosphorus Analyzer**

Water Quality On-line Total Phosphorus Analyzer is an instrument used for real-time monitoring of total phosphorus concentration in water bodies. Mainly originating from agriculture, industry, and urban domestic sewage. This analyzer can achieve rapid and accurate measurement of total phosphorus concentration in water bodies. It is also suitable for online monitoring of total phosphorus concentration in waterworks, surface water, groundwater, coastal seawater, water used in various industrial production processes, aquaculture, and other industries.

**Applications**

- Wastewater
- Tap water
- Aquaculture
- Groundwater quality
- Medical Institutions
- River water quality monitoring
- Laboratory water quality testing
- Coastal seawater

**Features**

- The ModBus serial port can be customized,;
- Multi platform and multi protocol transmission;
- Real time data display, query of historical hourly mean and daily mean data;
- Built in rich instrument protocols
- Set upper and lower alarm limits;
- Remote upgrade, USB drive upgrade, and built-in fault tolerance mechanism;
- Supporting webpage uploading and external USB flashdrives;
- Support manual and automatic supplementary transmission, dual data protection;

**Water Quality On-line Total Phosphorus Analyzer**

- Support platform reverse control samplers and online monitoring equipment;

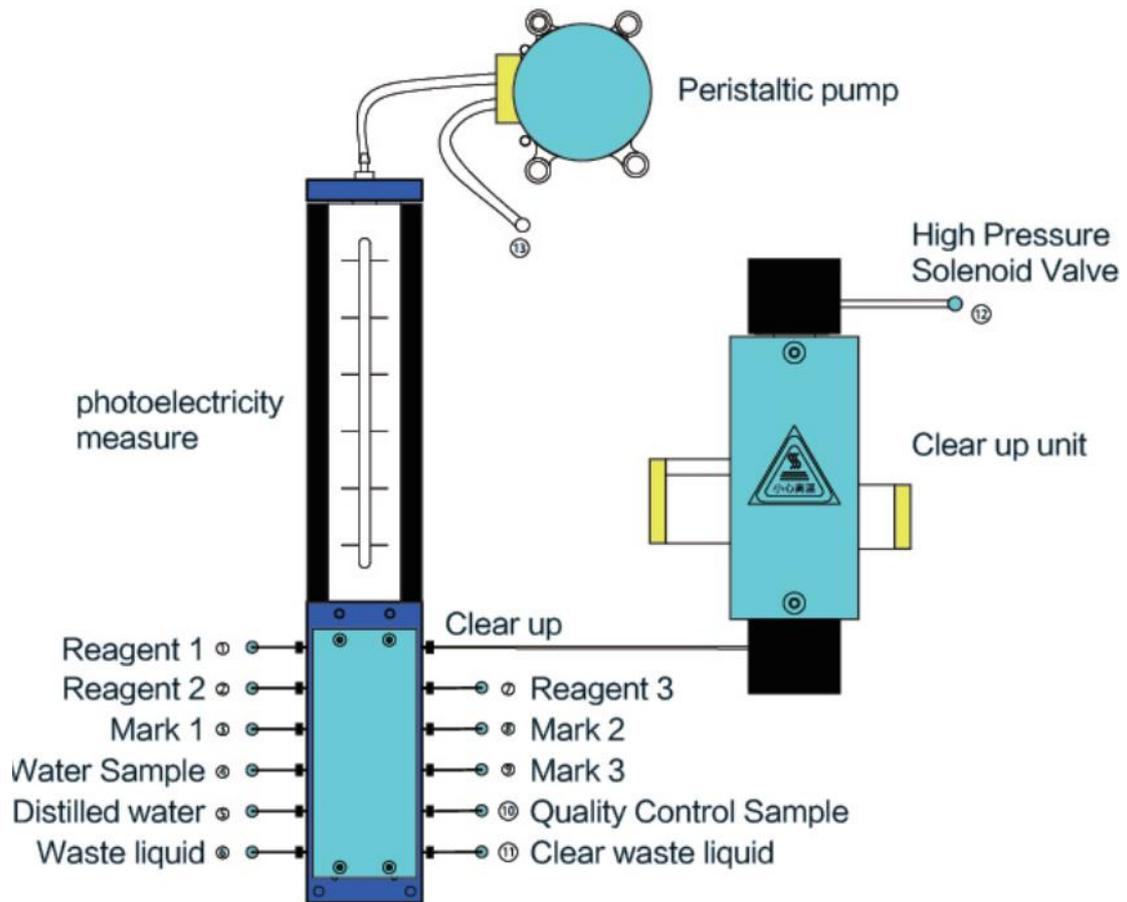
### Principle

Basic principle(ammonium molybdate spectrophotometry)

Under neutral conditions,use potassium persulfate to clear up the sample,and oxidize all the phosphorus contained into orthophosphate.In acidic medium,orthophosphate reacts with ammonium molybdate to generate phosphorus salt and Heteropolymetalate in the presence of antimony salt,which is immediately reduced by ascorbic acid to generate a blue chromium complex.Measure the absorbance at 700nm and convert it to the corresponding concentration value.

Parameters	
Measuring range	0~72 mg/L (Other ranges can be customized)
Indication error	≤±3.0%
Lower limit of measurement	≤0.05mg/L
Repeatability	≤±3.0%
24h high concentration drift	≤±5.0%
Analog output	4-20 mA
Digital communication	RS232/RS485
Environmental temperature	5℃-40℃
Environmental humidity	≤90%
Overall dimensions	Length 510mm×Width 410mm×Height 1305mm
Weight	≤60 kg
Power supply	AC(220±10%)V,(50±10%)Hz
Other functions	<ul style="list-style-type: none"> <li>■ Abnormal alarm,no data loss due to power outage;</li> <li>■ Automatic alarm when no water sample or reagent is collected;</li> <li>■ Touch screen display and command input;</li> <li>■ Abnormal reset,after power outage,the instrument automatically discharges residual liquid and restores its working state;</li> <li>■ Waste liquid separation;</li> <li>■ Standard sample verification;</li> <li>■ Automatic calibration; Automatic range switching;</li> </ul>

Work Flow Diagram



Water quality on-line total phosphorus analyzer work flow diagram