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Product Catalog

Accuracy Simple Quality



LS PA-1PDZ2G

Portable Multi-Parameter Water Quality Tester

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Portable Multi-Parameter Water Quality Tester

Introduction

Adopting an integrated military-grade high-strength waterproof carrying case design, the system features a built-in high-capacity lithium battery for mobile outdoor operations. It supports both cuvette testing and dish testing methods, and is equipped with a 360° rotatable cuvette detection function to effectively eliminate reading errors caused by variations between cuvettes, ensuring more accurate measurements.

The system includes a dual-heating-zone digestion module with independent temperature control, fiber optic detection technology, and imported light sources. As a professional water quality testing system, it enables rapid determination of multiple water pollutants such as COD, ammonia nitrogen, total phosphorus, total nitrogen, and more.

Developed based on industry standards, the system offers fast and accurate measurements, wide detection ranges, stable performance, and powerful functionality.



Product Features

- Dual Cuvette System:
- One 360° auto-rotatable cuvette detection system
- Two automatic dish detection structures
- Capable of simultaneously testing two water samples for the same pollutant
- High-Definition Color Screen:
- Independently developed smart detection system
- Paired with a 7-inch high-definition color touchscreen
- High-Performance ARM Processor:
- Stable performance, accurate measurements, and wide detection range
- Large-capacity data storage with free access to historical records
- Portable Integrated Design:
- All-in-one high-strength waterproof portable case for COD/ammonia nitrogen/total phosphorus/total nitrogen/heavy metal testing
- Complete Consumables & User-Friendly Operation:
- Equipped with optimized reagents and consumables (excellent stability)
- Supports free customization and combination of multiple testing items

Application

Domestic wastewater, industrial wastewater, water quality testing laboratories, healthcare institutions, petrochemicals, textiles, pharmaceuticals, food processing, and other industries.

Specifications

Measurement Item	COD	Ammonia Nitrogen	Total Phosphorus	Total Nitrogen	Turbidity
Measuring Range	2-20000 mg/L	0-150 mg/L	0-100 mg/L	0-100 mg/L	0-2500 NTU
Display	7-inch color LCD touchscreen, 8 touch-sensitive function modules		Storage	Can store 1 million data sets, freely accessible for review	
Detection Method	One 360° rotatable cuvette detection system		Pre-stored Curves	1000 pre-stored curves available for user selection, calibration, modification, etc.	
Optical System	Fiber optic detection system		Self-check	The instrument features automatic detection function	
Accuracy	≤±5%		Printing Method	Built-in thermal printer (standard), can print current and historical data at any time	
Wavelength Range	340-900 nm		Data Transfer	Equipped with USB and serial port transfer functions; Bluetooth interface optional	
Repeatability	≤±2%		Light Source	Imported cool light source (up to 100,000 hours lifespan)	
Resolution	0.001		Power Supply Mode	Supports switching between AC (alternating current) and DC (direct current) power supply	
Wavelength Accuracy	±1.0 nm		Dual-Zone Digestion	8-hole multi-function digestion zone, independent temperature control	
Bandwidth	4 nm		Digestion Temperature	Adjustable from room temperature to 200° C	
Auto-Calibration	The instrument features automatic calibration function		Temperature Uniformity	≤2° C	
Test Items	Over 50 parameters including COD, Ammonia Nitrogen, TP, TN, Turbidity, Colority, SS, etc.		System	Dedicated water quality analysis system	
Optical Stability	≤±0.005Abs/20min		Display Modes	Transmittance (%), Absorbance, and Concentration	
Chlorine Interference Resistance	[Cl ⁻]<1500mg/L; [Cl ⁻]<20000mg/L		Operating Environment	Temperature: 5-40° C; Humidity: ≤85% RH (non-condensing)	

Measurement items

No.	Parameter	Range (mg/L)	Detection Limit	No.	Parameter	Range (mg/L)	Detection Limit
1	Total Nitrogen (TN)	0-100	0.05	29	Aniline	0-20	0.03
2	COD	2-20000	5	30	Nitrobenzene	0-25	0.01
3	Ammonia Nitrogen (NH ₃ -N)	0-150	0.01	31	Volatile Phenols	0-25	0.01
4	Total Phosphorus (TP)	0-100	0.02	32	Copper (Cu)	0-5	0.005
5	Color	0-500 PCU	2 PCU	33	Fluoride (F ⁻)	5-2000	5
6	Turbidity	0-2500 NTU	5 NTU	34	Lead (Pb)	0.05-5	0.05
7	Permanganate Index	0.3-20	0.5	35	Hardness (as CaCO ₃)	0-500	5
8	Iron (Fe)	0-20	0.01	36	Suspended Solids (TSS)	0-1500	0.05
9	Hexavalent Chromium (Cr ⁶⁺)	0-5	0.001	37	Ozone (O ₃)	0-5	0.05
10	Total Chromium (Cr)	0-5	0.001	38	Aluminum (Al)	0-10	0.01
11	Zinc (Zn)	0-20	0.004	39	Chlorite (ClO ₂ ⁻)	0-10	0.05
12	Copper (Cu)	0-50	0.01	40	Vanadium (V)	0-10	0.05
13	Nickel (Ni)	0-50	0.1	41	Iodide (I ⁻)	0.02-1.00	0.1
14	Formaldehyde	0-50	0.2	42	Boron (B)	0-20	0.1
15	Nitrite Nitrogen (NO ₂ ⁻ -N)	0-6	0.1	43	Barium (Ba)	0-10	1
16	Antimony (Sb)	0-12	0.01	44	Thorium (Th)	0-1	0.005
17	Manganese (Mn)	0-50	0.02	45	Mercury (Hg)	0-0.40	0.005
18	Ferrous Iron (Fe ²⁺)	0-20	0.01	46	Silica (SiO ₂)	1-80	0.5
19	Nitrogen Dioxide (NO ₂)	0-10	0.005	47	Trace Arsenic (As)	0-0.12	0.005
20	Total Residual Chlorine	0-10	0.005	48	Total Arsenic (As)	0-5	0.05
21	Phosphate (PO ₄ ³⁻)	0-25	0.02	49	Carbon Disulfide (CS ₂)	0-15	0.1

Measurement items

No.	Parameter	Range (mg/L)	Detection Limit	No.	Parameter	Range (mg/L)	Detection Limit
22	Cyanide (CN ⁻)	0-6	0.02	50	Free Residual Chlorine	0-10	0.005
23	Sulfate (SO ₄ ²⁻)	3-1000	5	51	Thiocyanate (SCN ⁻)	0-15	0.05
24	Fluoride (F ⁻)	0-4.5	0.005	52	Beryllium (Be)	0-1	0.01
25	Total Cyanide	0.03-2.00	0.005	53	Kjeldahl Nitrogen (TKN)	0-150	0.01
26	Anionic Surfactants (MBAS)	0-20	0.05	54	Selenium (Se)	0-1	0.5
27	Nitrate Nitrogen (NO ₃ ⁻ -N)	0-100	0.005	55	Silver (Ag)	0-8	0.05
28	Sulfide (S ²⁻)	0-6	0.005	56	Cobalt (Co)	0-2	0.01

Note:Standard Configuration:COD dedicated reagent kit × 1, Ammonia nitrogen dedicated reagent kit × 1, Total phosphorus dedicated reagent kit × 1,Cuvette,Cuvette rack,Colorimetric tube rack,Pipette gun,Printer paper,Reaction tube,User manual,Product qualification certificate,Warranty card.

