

## Field Emergency Portable Multi-parameter Water Quality Analyzer with English version

### LH-MUP230(V11S)



## Introduction to the instrument

LH-MUP230 (V11S) portable multi-parameter water quality analyzer adopts pre-installed reagent tube colorimetric mode, the method is faster, the reagent volume is smaller, and it can accurately measure COD, ammonia nitrogen, total phosphorus, total nitrogen and turbidity. This instrument adopts the multi-optical path non-interference system newly developed by our company, which integrates multiple optical paths, accurate measurement, compact and convenient, direct reading of concentration, high degree of intelligence, equipped with a variety of professional consumables and reagents, especially suitable for field operation.

## Features

1. Easy to use: The fast method of colorimetry with pre-installed reagent tubes is adopted, the host is flexible and portable, equipped with a portable case and professional consumable reagents, suitable for various environments such as field and indoor;
2. Meet the standards: COD is designed and manufactured according to the principle of "Rapid Digestion Spectrophotometry (HJ/T 399-2007)", ammonia nitrogen adopts Nessler reagent spectrophotometry, total phosphorus adopts molybdenum antimony anti-spectrophotometry, and total nitrogen adopts chromotropic acid. The turbidity adopts the national standard spectrophotometry. It is suitable for the detection of COD, ammonia nitrogen, total phosphorus, turbidity and turbidity of various domestic and industrial sewage.
3. Small amount of sampling: Smaller measurement volume and reagent volume are used to reduce secondary pollution to the environment;
4. Accurate results: As a professional water quality analyzer, the concentration can be directly read, and the measurement results are accurate and stable;
5. Independent optical path: It has a multi-optical path non-interference colorimetric system, and adopts the colorimetric tube measurement method, which is convenient and fast;
6. Data storage: With data storage function, it can store 21,000 sets of data, which can be viewed



freely;

7. Instrument calibration: The instrument has its own calibration function, which can calculate and store the curve according to the standard sample, without the need to manually make the curve and change the curve parameters;

8. Data printing: It can be connected to a portable printer to print the current data and stored history;

9. Data transmission: equipped with a USB interface to transmit the stored historical data to the computer;

10. Time display: with year, month, day time display function;

11. Power-saving function: It has a power-saving design function of 10 minutes of no-operation shutdown reminder function and termination of automatic shutdown.

### 3 > Technical Parameters

Instrument name: portable multi-parameter water quality analyzer

Instrument model: LH-MUP230 (V11S)

#### COD

3.1 Measurement wavelength: 610nm

3.2 Measurement range: (0~10000) mg/L (segmented)

3.3 Determination method: COD rapid digestion spectrophotometry

3.4 Indication error: error $\leq$ ±10%

3.5 Measurement time: 15 minutes

3.6 Number of curves: 5 for each mode, 25 in total

3.7 Stability: <0.005A/20min

3.8 Repeatability:  $\leq$ ±5%

3.9 Stored data: 21000 groups

#### Ammonia nitrogen

4.1 Measurement wavelength: 420nm

4.2 Measurement range: (0~100) mg/L (segmented)

4.3 Determination method: Nessler reagent spectrophotometry

4.4 Indication error: error $\leq$ ±10%

4.5 Measurement time: 10 minutes

#### Total Phosphorus

5.1 Measurement wavelength: 700nm

5.2 Measurement range: (0~25) mg/L (segmented)

5.3 Determination method: molybdenum antimony anti-spectrophotometry

5.4 Indication error: error $\leq$ ±10%

5.5 Measurement time: 45 minutes

#### Total nitrogen

6.1 Measurement wavelength: 420nm

6.2 Measurement range: (0~100) mg/L (segmented)





6.3 Determination method: photochromic acid photometry

6.4 Indication error: error $\leq\pm 10\%$

6.5 Measurement time: 60 minutes

### **Turbidity**

7.1 Measurement wavelength: 700nm

7.2 Measurement range: (10~800) NTU

7.3 Determination method: spectrophotometry

7.4 Indication error: error $\leq\pm 10\%$

7.5 Measurement time: <1 minute

### **Physical parameters**

8.1 Measurement method: direct reading of concentration

8.2 Data transmission: USB interface

8.3 Display screen: monochrome LCD screen

8.4 Operation interface: English

8.5 Printer: Portable thermal line printer

8.6 Instrument size: (224×108×78) mm

8.7 Instrument weight: 0.55Kg

### **Working parameters**

9.1 Ambient humidity: relative humidity <85%RH (non-condensing)

9.2 Ambient temperature: (5~40)°C

9.3 Rated voltage: battery 4AA/LR6 and 8.4V power adapter

9.4 Rated power: host 0.3W

Water proof: IP68 waterproof

### **Parameters of digester**

10.1 Standard digestion instrument name: portable digestion instrument

10.2 Standard digestion instrument model: LH-9AE

10.3 Timing range: 1 minute - 96 hours

10.4 Number of digestion wells: 9 wells

10.5 Timing accuracy: 0.2 seconds/hour

10.6 Temperature indication error:  $\leq\pm 2^{\circ}\text{C}$

10.7 Uniformity of temperature field:  $\leq 2^{\circ}\text{C}$

10.8 Temperature control range: (45~190)°C

10.9 Timing Mode: Smart Timing

10.10 Display mode: digital tube

10.11 Operation mode: button

10.12 Parameter switching: manual selection at startup

