

# EYD322-G Hand held Ultrasonic Level Meter

## Manual



**ЭНЕРГОМЕТРИКА**  
[www.energometrika.ru](http://www.energometrika.ru)

## I、General information

Ultrasonic level measuring instrument, taking the advantages of various level measuring instruments, is a universal one characterized by total digitalized and humanized design. Besides level, it also can measure depth, thickness, weight, volume,

According to customer demand, we can add more function, such as: Bluetooth, GPRS, and GPS. Current output use isolated type module, its can better match with control instrument, such as PLC.

## II、Characteristics

- ★Built-in lithium battery3.7V (5.4)
- ★Backup and recovery parameter set,
- ★Bilingual menu
- ★Set a filter value to remove
- ★Support Bluetooth, GPRS, GPS (custom made)
- ★Customize serial port data format
- ★Support customize main display
- ★Support customize function calculation
- ★Support SD card data collection

### III、Specifications

Range: 5m (custom made)      blind zone :< 0.5m (different for range)

Accuracy : $\pm 0.2\%$  × maximum range

Minimum indication resolution: 1mm

Indication: 3"LCD

Power: 5V DC 1A

Power consumption :< 0.3W for work  
<0.03W for standby

Output: USB-UART

Protection degree: IP60 for instrument

IP67 for sensor

Operating temperature: normal

Operating pressure: normal

Instrument material: ABS

Sensor material: PP

Cable: 10m

Dimension (mm):

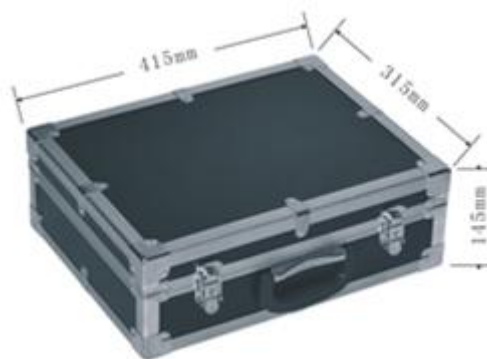
Sensor dimension:  $\Phi 74\text{mm} \times 135\text{mm} \times \text{M60}(5\text{m}-15\text{m})$

Sensor installation: M60X2or  $\Phi 61\text{mm}$

Instrument dimension: 210mm×100mm×76mm



Instrument



sensor

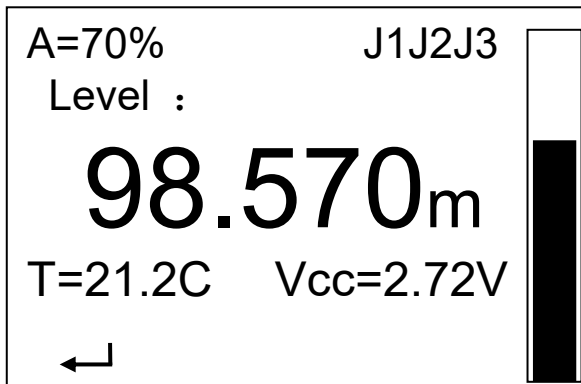
case

Packing list: 1 main instrument (8G card)

- 1 sensor
- 1 power adapter
- 1 data wire
- 1 case

## IV、Menu operation and parameters setting

### 4.1 Main interface



A: Gain value (level is more reliable when gain is stable)

T: Ambient temperature

Vcc: voltage

: Level percentage

### 4.2 Menu and instruction

First class menu	Second class menu	Third class menu
Measure	Data Oper.	Ins. Ht
	Filter Set	Filter
	Sensor	PUL
System	Password	

<b>Output</b>	<b>Serial</b>	<b>Add.</b>
		<b>Bdr.</b>

Measure->Data Oper. ->Ins. Ht, Ins. Ht=installation height

When measures liquid level, it's the distance from sensor to tank bottom.

When measures space level, the value is 0.

Measure-> Filter Set->Filter, filter times in fix time, 0-100.

Measure-> Sensor->PUL, transmitted intensity.

System->Password, password for menu:0.

Output->Serial->Add., serial address: 0-255.

Output->Serial->Bdr., serial baud rate: 600-38400

## V、Installation and precaution

### 5.1 Sensor usage precaution:

1. Sensor should be vertical to the water surface.
2. There should be no shelter between sensor and bottom.

5.2 It is preferred to use a 3.7V lithium cell. Refer to the tags attached on the instrument for wiring. In order to keep it working reliable and display precise, please electrify >2 minutes before work.

## VI、Trouble shooting

No.	problem	probable reason	remedy
1	Not working when power on, no display, no sound of sensor	① power is not connected or "+" "-" polarities are connected reversely; ② too low voltage resulting no working or too high resulting damage	① check to ensure correct wiring as instructed. ② use DC supply, contact with distributor
2	No display of sensor but with sound	① operation of turning off display has been carried out. ② connected to high voltage, damaging display chip	① press any key to turn on display; ② contact with distributor.

3	With sound and display, but the values not change with distance	① too low input voltage leading to abnormal instrument. ② the sensor or power driver damaged.	① us DC supply ②contact with distributor
4	With display and sound, no change with distance or irregular fluctuation of values	①too deflective installation ②improper setting of pulse intensity, leading to great residual vibration or diffraction ③more than 2 instruments on stream, interfering each other ④too much electromagnetic disturbance in working area	①adjust the axis of sensor vertical to surface to be measured ② adjustment transmit intensity ③ try to eliminate interference; ④find out disturbance source and shield from it.
5	With sound of sensor, display: <b>no sensor</b>	① exceeding measure range ② too close between surface and sensor ③improperly used for high dust, foam or steam content fields, or too high or too low working temperature; improper setting of pulse intensity	① adjust actual range with permitted ② adjust working conditions as required ③ change transmitting intensity until stable display
6	With sound of sensor, display deviations exceeding 10cm	①non vertical installation, leading to multiple reflection ②installed too close to wall, sonic wave reflected midway ③ check for correct setting ④check for correct display of temperature	①adjust installation positions several times. ② correctly set sensor

## Manufacturer Certificate

Type : \_\_\_\_\_

Item No. : \_\_\_\_\_

### Main specification

Sense range : FS=\_\_\_m

Unusable area : 300mm ; 500mm ; ≤60mm ; other\_\_\_\_\_

accuracy : ±0.2%×max range ; ±2mm ; other\_\_\_\_\_

display resolution : 1mm

output : USB-UART ; other

working temperature : normal ; -10-60°C ; other\_\_\_\_\_

working pressure : normal ; other\_\_\_\_\_

working humidity : ≤80%RH

storage temperature : -40—85°C

storage humidity : ≤70%RH

working voltage : 3.7V D

Inspected by:

Delivery date:

### Guarantee log

Purchaser		Telephone	
Address		Post code	
Product		Type	
Item No.		Delivery date	
Repair record			

Notes	<ol style="list-style-type: none"><li>1. According to <b>THREE GUARANTEES</b>, When there are problems with the product under correct operation, it can be refunded, changed and repaired free of charge within one week, three months and one year respectively from the day it was bought.</li><li>2. For the problems caused by improper use, only the cost of material will be charged.</li><li>3. The product can not be dismantled or unsealed without manufacturer's agreement; otherwise the repair service is not available.</li><li>4. The freight out and home in relation to repair will be paid by customer.</li></ol>
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