



**2024
PRODUCT
INTRODUCTION**

Ultrasonic Level Meter

www.aoboinstrument.com



CONTENTS

I. Product Overview 3

II. Features 3

III. Technical Indicators 4

IV. Instrument Installation 4

Company Profile

Weifang AOBO Instrument Technology Development Co., Ltd., founded in 2002, with registration capital of 10 million RMB, is a "High-Tech" and "Double-Software Certification" enterprise specialized in "flow measurement and intelligent measurement & control" industry, integrating R&D, production, sales and service.

The company has a core R&D team for computer software and technology, automatic intelligent control, HVAC engineering design and flow measurement. It has the ability to provide customers with specific solutions and complete sets of products according to their different needs, based on years of practical experience. Especially in the heating industry, by the customer's recognition, has a high reputation in the industry.

The products are mainly used in the measurement and control of "steam, liquid, gas, sewage and tap water"; and especially suitable for energy monitoring and energy-saving control in many industries, such as thermal power plants, thermal companies, residential heating, petroleum, chemical industry, papermaking, food, coating, printing & dyeing and HVAC.

Since its foundation, based on self-developed and leading technology, reliable quality, high-quality service and good reputation, our company has been warmly accepted by customers, and become a designated supplier for many central enterprises and listed companies.

Contact

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All of the catalogue and company information can be found at:

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I. Product Overview

The instrument has a brand-new signal processing technology, with the characteristics of safety, cleanliness, high accuracy, long life, stability and reliability, convenient installation and maintenance, and simple reading. It is widely used in petroleum, chemical industry, water treatment, water conservancy, steel, coal mine, electric power and food processing industries, and is suitable for various fields such as acid, alkali, salt, anticorrosion, high temperature and explosion protection. It can be connected with various brands of PLC systems or secondary control systems through 4~20 mA or RS485 (Modbus protocol) to provide real-time liquid level data for industrial automation.



II. Features

Stable and reliable: We select high-quality modules from the power supply part in circuit design, select highly stable and reliable devices for the procurement of key components, and can completely directly replace foreign imported instruments.

Software technology: Acoustic intelligent technology software can perform intelligent echo analysis without any debugging and other special steps, and has the function of dynamic thinking and dynamic analysis.

High accuracy: The acoustic intelligent technology owned by our company greatly improves the accuracy of ultrasonic level meter, the accuracy of liquid level reaches $\pm 0.3\%$, and has the field anti-interference function.

Low failure rate, easy installation and maintenance: This instrument is a non-contact instrument and does not have direct contact with liquid. Therefore, the failure rate is low. Instrumentation provides a variety of installation methods and can be fully calibrated through this manual. **Multiple protection:** The protection level of instrument reaches IP65; the circuit parts have isolation protection function, respectively, so as to prevent short

circuit, lightning strike and other damage to the whole set of instrument.

III. Technical Indicators

Measuring range: 0-15m (a large number of programs can be customized, blind area: 0.35m~ 0.5m);

Ranging accuracy: 0.5%;

Power supply voltage: DC12V, DC24V/AC220V built-in lightning protection device; Host display: LCD display (resolution 1 mm);

Analog output: 4 ~ 20 mA (Optional 1- 2 Circuit relay output);

Pressure resistance of sensor: < 0.1MPa;

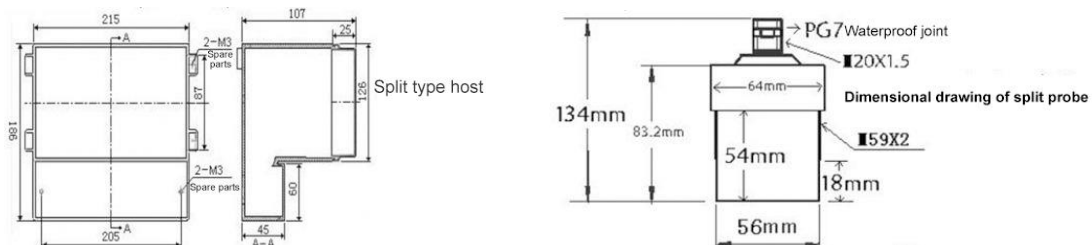
Protection grade: IP65;

Digital Output: RS485 (Modbus) protocol;

Ambient temperature: -40℃ ~ 80℃;

IV. Instrument Installation

1. Instrument dimensions (height)



(Split type dimension figure)

2. Instrument installation principles:

A. The distance from the transmitting surface of the transducer to the lowest liquid level shall be less than the range of the optional instrument.

B. The distance from the transmitting surface of the transducer to the highest liquid level shall be greater than the blind area of the instrument selected.

C. The emitting surface of the transducer should be parallel to the liquid surface.

D. The installation position of transducer shall avoid the position where the liquid level

such as inlet and outlet directly below has sharp fluctuation as far as possible.

E.If the wall or tank wall is not smooth, the instrument needs to leave the wall or tank wall for more than 0.5m.

F.If the distance from the emission surface of the transducer to the highest liquid level is less than the blind area of the selected instrument, an extension tube needs to be added. The extension tube needs to be vertical to the liquid level, and the inner wall should be kept smooth.

3.Installation precautions

A.The instrument enclosure must be reliably connected to earth.

B.Cord, cable protection tube, to pay attention to prevent excessive water.

C.Although the instrument itself has lightning protection components, when used in the torpedo area, a special lightning protection device is additionally installed at the inlet and outlet terminals of the instrument.

D.When the instrument is used in a particularly hot and cold place, that is, the ambient temperature may exceed or be lower than the ambient temperature of the instrument in normal use, it is necessary to add high and low temperature devices to the instrument to prevent the instrument from aging in advance and affecting the normal use.

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