

aobo

instrument

**2024
PRODUCT
INTRODUCTION**

Intelligent Multivariable Liquid Level Gauge



CONTENTS

I. Product Overview 3

II. Product Features3

 2.1 Design features 3

 2.2 Application4

 2.3 Visual data platform4

III. Connection Diagram of Intelligent Transmitter4

IV. Performance Parameters5

V. Installation Method and Overall Dimensions5

VI. Installation Instructions 6

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

AOBO Instrument Technology Development Co.,Ltd

No. 8009 Minzhu St.-Weifang,Shandong Province

261100,China

Mob.: +86 19953631088/+8619953631096

Email: aobometer@gmail.com

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

WWW.AOBOINSTRUMENT.COM

I. Product Overview

ABDT-MP-II intelligent multi-variable liquid level gauge is a multi-functional digital intelligent instrument, which uses advanced and stable mono crystalline silicon technology and unique integrated process technology to realize the simultaneous monitoring of liquid level, differential pressure and pressure by a single core. It also has environmental temperature monitoring and positioning functions. It

can be powered by dry battery, solar energy and external power supply. The data can be wired 4~20mA/RS485, The monitoring data can also be transmitted to the IOT cloud server through the 5G/4G/3G/2G wireless network, which is convenient for customers to know the media status in the tank at any time and anywhere.



II. Product Features

2.1 Design features

- ◆ It is designed with advanced, stable and reliable sensor technology and ARM processor;
- ◆ The company's unique sensor overload protection function, and pressure overload will not cause potential safety hazards;
- ◆ Large screen display is adopted, which can simultaneously display a variety of key data information such as pressure, liquid level, volume, filling rate, electric quantity, medium, environmental temperature, signal strength, etc;
- ◆ The shell is made of high-grade ABS material, which can be used outdoors for a long time, reaching IP65 design;
- ◆ Power supply mode, including battery, external power supply or solar power supply;
- ◆ Monitoring data reporting cycle and display refresh frequency can be set according

to requirements to meet different needs of customers;

- ◆ It can be equipped with GPS positioning function, which can accurately monitor the position information of the tank body;
- ◆ It has the calibration function to calibrate with the standard table;
- ◆ It can drive the external solenoid valve to provide active safety control capability;
- ◆ Media LO₂/LN₂/LAr/LNG/LPG/CO₂/He can be selected by pressing the key.

2.2 Application

It is widely used to process control field of the industry, such as Petroleum, chemical industry, metallurgy, electric power, food, papermaking, medicine, machinery manufacturing, scientific experiments, aviation and military, etc.

2.3 Visual data platform

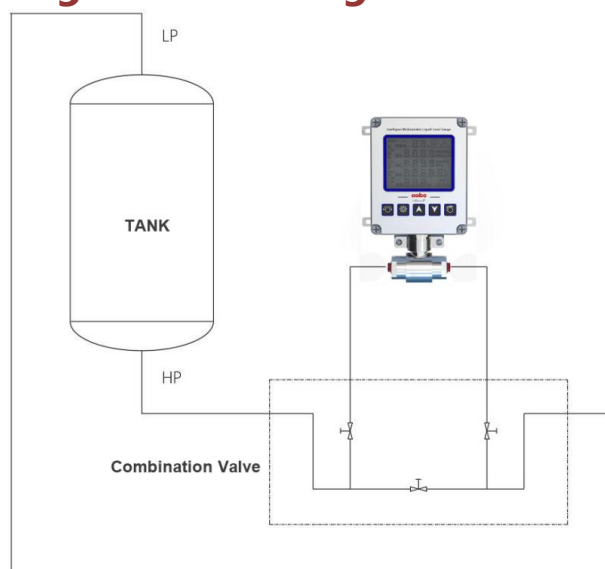
Real time data reporting

The tank liquid level information is detected in real time and sent to the terminal automatically and regularly for viewing.

Timely reporting of abnormalities

When the tank body liquid level information exceeds or is lower than the set threshold, the abnormal information terminal will be sent automatically for viewing.

III. Connection Diagram of Intelligent Transmitter



IV. Performance Parameters

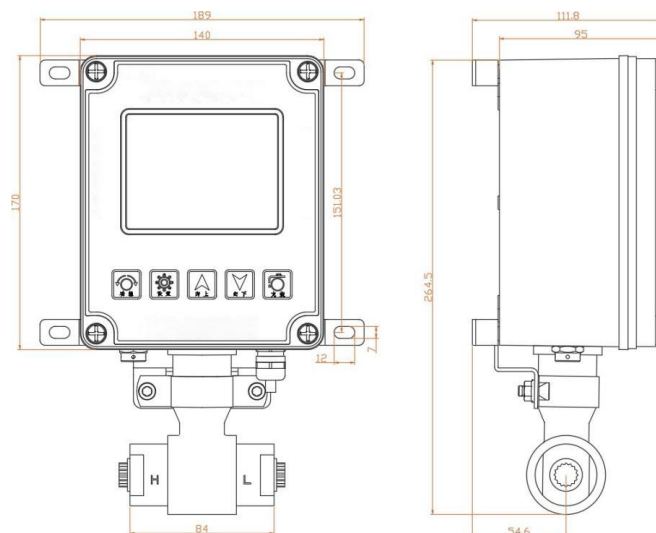
Pressure type	Differential pressure, pressure
Differential pressure	
Differential pressure range	40KPa, 100KPa, 250KPa (other ranges can be customized)
Accuracy	0.2%FS
Pressure	
Pressure measurement range	4MPa (other ranges can be customized)
Accuracy	0.2%FS
Temperature drift	0.5% FS (-20 ~ 70 °C)
Overload pressure	16MPa
Maximum static pressure	40MPa
Ambient temperature	With LCD meter -30 °C ~ 70 °C
Medium temperature	-40 °C ~ 104 °C
Storage temperature	-40 °C ~ 85 °C
Insulation resistance	$\geq 100\text{M}\Omega$ /500VDC (200M Ω /250VDC)
Degree of protection	IP65
Explosion-proof grade	Non explosion proof
Long term stability	$\pm 0.2\%$ FS / year
Power supply	Battery, external power supply, solar energy optional
Data transmission frequency	1 time /3 hours (transmission frequency can be adjusted)
Communication mode	2G/3G/4G
Diaphragm material	316 Stainless steel
Interface specification	NPT 1/4
Shell material	ADS+PC
Size / weight	140mm*170mm*95mm/1.5kg (excluding options)

Note: other extended functions are customized and developed according to customer requirements.

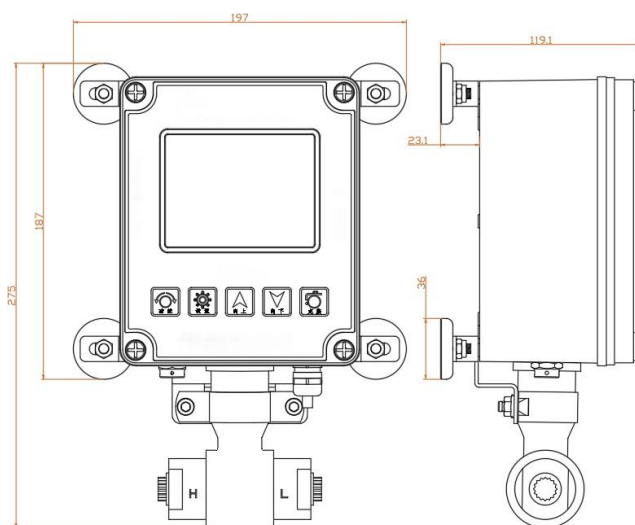
V. Installation Method and Overall Dimensions

This product provides a variety of installation methods, according to the actual situation, choose the appropriate installation method.

5.1 Bare metal installation and overall dimensions



5.2 Installation with strong magnet and overall dimensions



VI. Installation Instructions

1. Please reserve sufficient operation space according to the installation size of the liquid level gauge and the butt joint of the pipeline in advance to ensure that the wrench and other tools can operate normally;
2. The liquid phase corresponds to H and the gas phase pipeline corresponds to L;
3. After aligning the mounting hole of the liquid level gauge bracket with the mounting

hole of the base plate, insert four connecting bolts and cover the matching nuts (if it is fixed by magnetic suction, fix the magnet with the host through the nut first, and then directly adsorb it on the mounting base plate).



4. Use a wrench to tighten the fixing bolts and nuts;
5. Check whether there is air leakage at H and L ends. If it is normal, the installation is completed. If there is air leakage, reinstall and tighten until there is no air leakage;
6. Set reasonable key parameters according to the actual situation (if necessary);
7. Observe whether the liquid level gauge screen display is normal after ventilation;
8. Check whether the terminal has data push and accuracy;
9. For the connecting wires of each optional function, please refer to the corresponding line mark of the product for connection.

Note: if it is necessary to provide ferrule nuts and butt nuts of other specifications, it is necessary to communicate with our company in advance, and the whole machine is not equipped with other installation accessories by default.

Contact

AOBO Instrument Technology Development Co.,Ltd

No. 8009 Minzhu St.-Weifang,Shandong Province

261100,China

Mob.: +86 19953631088/+8619953631096

Email: aobometer@gmail.com

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

WWW.AOBOINSTRUMENT.COM