Manual v2.2

Continuous float ball level transmitter

LB100

Please read this manual carefully before using product

Preface

Dear Users:

Hello, sincerely thank you for using our products. in order to ensure you safely, reliably, accuratly use the products, please read the manual carefully before you use product.

This product manual detailedly introduces product technical parameters, application, equipment composition and operation, etc.

In order to permanently ensure the reliability and stability of this series instrument, please read the manual carefully before you use product.

You will have some new discovery and more practical using methods when you are actually operating the instrument, you have a particular opinion for the shape of the product, the structure and function. Looking forward to your valuable advice.

We will put your ideas into power to improve products, improve the service.

Thanks for Your Cooperation!

Catalogue

1. Description

Continuous Float Level Transmitter uses the magnetic inside of the floating ball following as the change of liquid level to change divider circuit composed by the resistor inside of the rod and the magnetic reed switch, thus converted into divider signal which can be turned by transmitter into standard industrial signal of 4~20mA so as to test the liquid level. The smaller the clearance of the magnetic reed switch is, the higher the accuracy is. This level indicator can also be used for long-distance indication if combined with other secondary instrument. It is a reliable indicator with simple principle.

2. Technical Specification

1. Working pressure: 0.5MPa,1.6MPa,2.5MPa,4.0MPa
2. Working temperature: -30-120℃, -30-75℃,
3. Power supply of transmitter: 13-36V,
4. Output signal: 2 wires DC 4-20mA, 2 wires standard industrial current signal
5. Resolution:10mm,8mm,5mm

3. Notice of installation

1. Magnetic level transmitter should be mounted on the side or top mounted on the tank.
2. Make sure the connection type and pressure range.
3. Make sure the density of measuring medium should be large than density of float ball.
4. Level rising speed should be small than 80mm/s.

Objects are not allowed to get into the cavity of magnetic float transmitter when installation.

6. Magnetic switch should avoid strong impact when installation, and should also avoid the magnetic field interference in 10cm.
7. Please check cables and voltage again before power on, in case the transmitter or magnetic switch is damaged unexpectly.

4. Adjustment of level transmitter

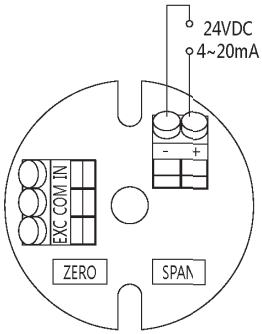
4.1 Wiring connection of non-lcd indicating transmitter:

1. Diagram of non-lcd indicating wiring connection(1)
2. Transmitter is already adjusted when user place the order, and it's better not to adjust optionally.
3. If the output of transmitter is not same as liquid level, user could adjust the transmitter, details are as below and diagram 1 :

a) Positioning float ball to zero, adjust "ZERO" to make the output current 4mA.

b) Positioning float ball to high level, adjust "SPAN" to make the output current 20mA.

Notice: during usage of level transmitter, it's better not to open the junction box to adjust "ZERO"and"SPAN" to avoid wrong indicating of transmitter.

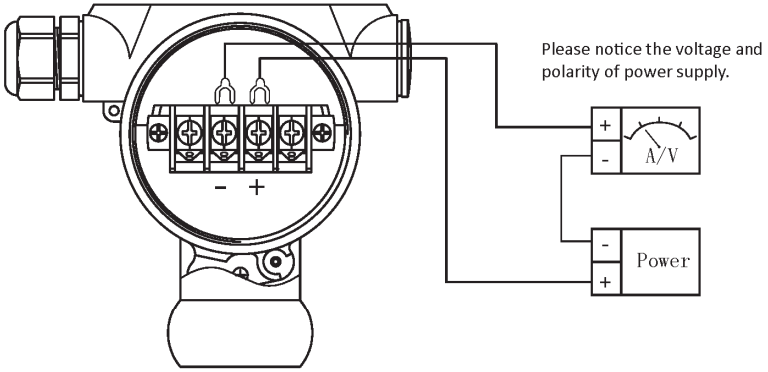


Wiring diagram of remote transmission module

Picture (1)

4.2 Wiring connection of smart indicating level transmitter

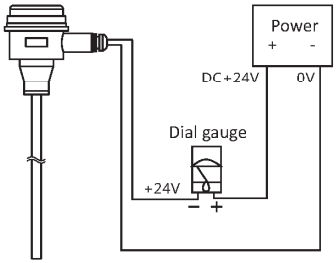
1. User could select PLC, IPC and other terminal control system according to actual need.
2. 2 wires wiring connection (picture 2) , please notice voltage and polarity of power supply.



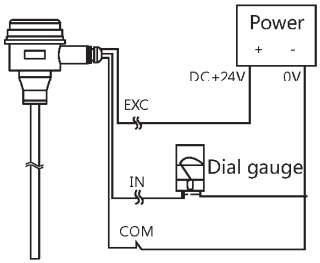
Picture (2)

5. Transmitter with cables

1. User could select dial gauge or digital gauge as terminal display according to actual need.
2. The output could be devided into 2 wires (picture 3) and 3 wires (picture 4).
3. Digital gauge must be with 24V DC power supply, 4-20mA input, if there is no 24VDC, extra 24V DC power supply is needed.



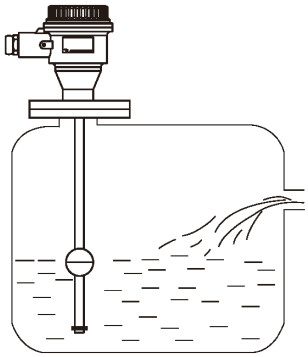
Picture (3)



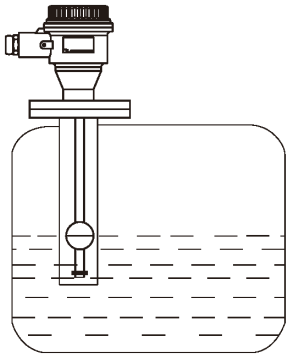
Picture (4)

6. Common types of products

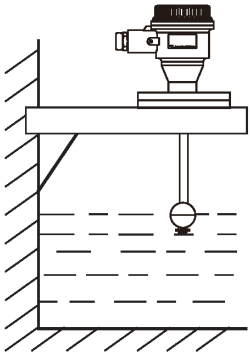
7. Instruction of installation



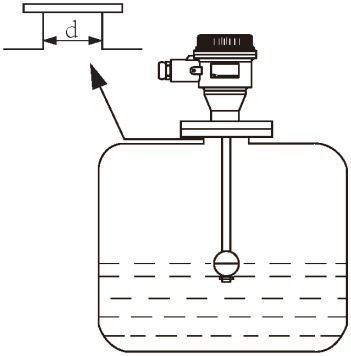
Picture (5)



Picture (6)



Picture (7)



Picture (8)

1. Installation position should be away from inlet, or it will cause wrong switch action because of the fluctuation of water inlet, as picture (5)
2. If switch is installed in the area of stirring, chock plate could be installed, as picture (6)
3. If switch is installed on the wall of concrete tank,L type slotted-angle shelving could be installed, as picture (7)
4. The diameter of pipe must be larger than the diameter of flange connection pipe of float ball, as picture (8)
5. Cable is suggested to use bank cable which is Φ8mm.
6. The density of measured medium should be larger than density of float ball, and the liquid should not with magnetic products like scrap iron.

Note:

1. It's not allowed to hold the outside case of product with hands when unscrew it, should use wrench to unscew the hexagon bolt instead.
2. Rain-proof is necessary after instrument is installed,liquid is not allowed to get into junction box. Electrical interface should be downward when it's side mounted, if only one of the interfaces is connected to cable, the other one should be blocked off.

8. Common fault and eliminating methods

NO.	Fault phenomenon	Reasons to analyze	Elimination methods
1	No actions of float ball	1. Density of medium is smaller than density of float ball	Recheck the density of float ball
		2. Float ball is leakage.	Contact us to change the float ball
		3. Float ball is stuck by objects.	Clear the objects
2	Float ball with action, but there is no signal output.	1.Position offset	Adjust position of float ball
		2.Magnetic reed module is damaged.	Contact us
3	Signal output is unnormal	There is magnetic field around	Eliminate the magnetic field
4	Signal stays, unable to recover.	Float ball is unable to reset, and stuck by objects.	Clear the objects
5	Signal output is not compliance with actual value, but it keeps linear variation.	Position of buckle is moved.	Adjust the position of buckle to original place.

9. Out of box and check

1.Please check whether there is any deformation or damage on the outer packing before unpacking, taking photos as indemnity basis.

2.When unpacking the case, please check whether there is any deformation or damage on the content and quality problem, taking photos as indemnity basis.

3.Please check whether the contents are in conformity with order content, the number is correct or not.

4.If any abnormal situation above please relate this company in 7 days (with photos), otherwise the nu not giving a replacement or repair

5.Container content: a) level indicator

b) level indicator manual

c) product certification

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