

Installation instructions

Intelligent wireless differential pressure transmitter

Safety guidance

This installation instruction contains important information on how to use the transmitter correctly. The transmitter installer shall carefully read this operation manual before operating the transmitter. In case of further understanding or special problems, which are not described in detail in this installation manual, please contact our company to obtain necessary information.

Please pay attention to the warning signs in the manual! It is forbidden to crystallize or solidify the measured medium, otherwise the sensor will be damaged!

The operator must strictly follow the installation instructions. In addition, occupational safety rules, accident prevention guidelines, national installation standards and engineering specifications must be observed.

Please keep this manual properly and store it in a convenient place near the transmitter.

The copyright of these installation instructions is protected. The installation instructions of this version are written according to the functions that can be realized by the corresponding product at the time of printing, and describe the product functions and operation steps as fully as possible. If you find mistakes, you are welcome to criticize and correct them. The company shall not be liable for any possible wrong description and possible consequences.

- reserve the right to modify the technical parameters -

Icon description

 Danger! - A hazardous situation that could result in death or serious injury.

 Warning! - A potentially hazardous situation that could result in death or serious injury.

! Be careful! - A potentially hazardous situation that may result in minor injury.

 Reminder! - A potentially hazardous situation that could result in personal injury.

 Tips! - Tips and information to ensure trouble free operation of the equipment.

Unpack

a) After unpacking, check whether the documents and accessories are complete according to the packing list.

Packing documents: one copy of installation instructions.

One product certificate.

A warranty card.

A magnet.

b) When receiving the product, please check whether the package is intact, and check whether the transmitter model and specification are consistent with the product you choose.

c) Observe whether the transmitter is damaged due to transportation for proper treatment.

d) The user is expected to keep the "warranty card" properly and do not lose it, otherwise it cannot be returned to the factory for free maintenance!

Precautions for on-site use of explosion-proof equipment

 danger

Non explosion proof products, when used in explosion-proof areas, can cause serious personal injury and significant material damage. Please note whether the model category is an explosion-proof product.

 Warning!

The transmitter shall be installed strictly in accordance with the relevant provisions of GB3836.15-2017 "Electrical Equipment for Explosive Gas Environments Part 15: Electrical Installation in Hazardous Areas (excluding Coal Mines)".

 danger

The transmitter housing must be effectively grounded.

 danger

The product casing is made of aluminum alloy material, and it is necessary to prevent ignition hazards caused by impact or friction!

 Warning!

When the internal components of the transmitter are damaged and need to be repaired or replaced, they need to be returned to the factory for replacement or repair.

 danger

To avoid the risk of explosion, the following rules must be followed:

-In the presence of explosion hazards, it is prohibited to operate the transmitter under power supply.

-Avoid excessive deposition of dust on the surface of the transmitter (exceeding 5mm) or complete coverage by dust.

-Maintenance can only be carried out after confirming the absence of flammable gases at the installation site.

 danger

When using explosion-proof transmitters in hazardous areas, the cover of the transmitter must be tightened. To ensure safe use, safety regulations should be strictly followed, and it is absolutely not allowed to open the transmitter cover when powered on. When installing the transmitter, it should be ensured that the cable outlet has good sealing.

Precautions for use

 DANGER!

The transmitter adopts diffused silicon oil filled core, which may cause explosion accidents if not used properly. To ensure safety, it is forbidden to measure oxygen.

 DANGER!

This product is not explosion-proof, and its use in explosion-proof area may cause serious personal injury and material loss.

 Warning!

It is forbidden to measure the media with incompatible materials with the transmitter.

! No modifications or changes can be made on the equipment.

! Handle the transmitter with care and do not throw it at will. Do not use brute force when installing the transmitter.

 When measuring steam or other high-temperature medium, be careful not to let the medium temperature exceed the upper limit of the working temperature of the transmitter. If necessary, a cooling device shall be installed.

 In the process of pressure measurement, pressure shall be increased and relieved slowly to avoid instantaneous increase to high pressure or decrease to low pressure;

 Please do not disassemble or touch the diaphragm when using it to avoid product damage.

ID

Intelligent wireless differential pressure sensor

model:

model:

Nominal voltage:

Nominal voltage

Lower range limit

Lower range limit:

Nominal capacity:

Nominal capacity

Upper range limit

Upper range limit:

accuracy:

accuracy:

authentication:

Product number

IMEI: *****

⚠ Warning: there is danger of fire and burn in the lithium battery. The ambient temperature shall not exceed 100 °C

Network system

Network system:

Protection Level

Protection Level:

Installation precautions

- 👉

Try to install it in the place with small temperature gradient change.
- 👉

During installation, it is recommended to keep the pressure interface at both ends horizontal so as to reduce the impact of the installation position on the transmitter. If the size of the interface does not match the size of the field interface, the adapter can be made for connection.
- 👉

It is recommended to install a pressure stop valve before the pressure measuring point to facilitate the maintenance and disassembly of the transmitter. In addition, it can reduce the pressure impact during the initial installation of pressure measurement. After the pressure in the pipeline is stable, slowly open the stop valve to start the measurement.
- ⚠ Warning!

The equipment must be installed without pressure.

Explosion proof instructions

Explosion proof type

Compliant with standards GB/T 3836.1-2021, GB/T 3836.2-2021, GB/T 3836.31-2021, GB/T 4208-2017
Explosion proof mark: Ex db II C T6 Gb
Explosion proof certificate number: CCRI 22.1623X

Explosion proof dust type

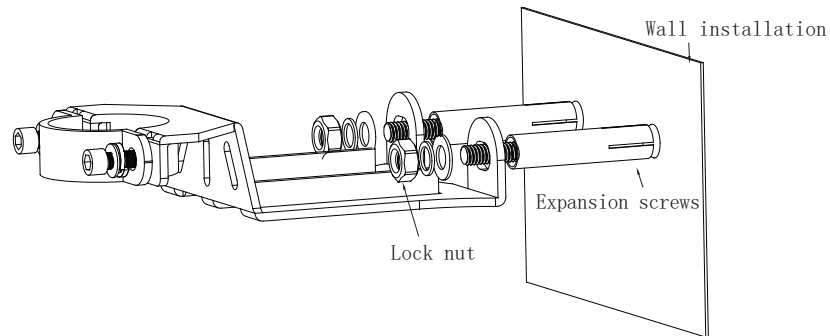
Compliant with standards GB/T 3836.1-2021, GB/T 3836.2-2021, GB/T 3836.31-2021, GB/T 4208-2017
Explosion proof mark: Ex tb IIIC T80 °C Db
Explosion proof certificate number: CCRI 22.1623X

Install

Bracket installation

-Wall installation

It can be directly installed on the wall. It is recommended to use M8 expansion bolts. The installation method is shown in the following figure:

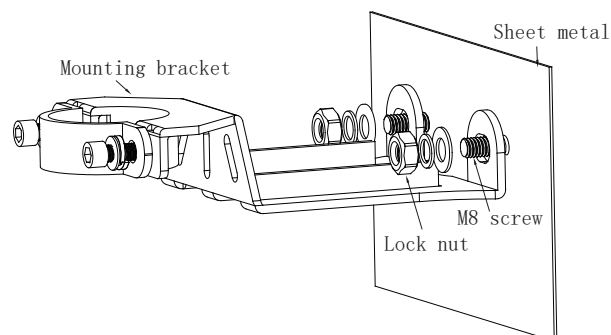


Note 1: the mounting bracket (ZJ03) shall be purchased separately.

Note 2: expansion bolts shall be purchased by ourselves.

-Metal plate installation

It can be directly installed on the metal plate. It is recommended to use M8 screws for installation, as shown in the following figure:

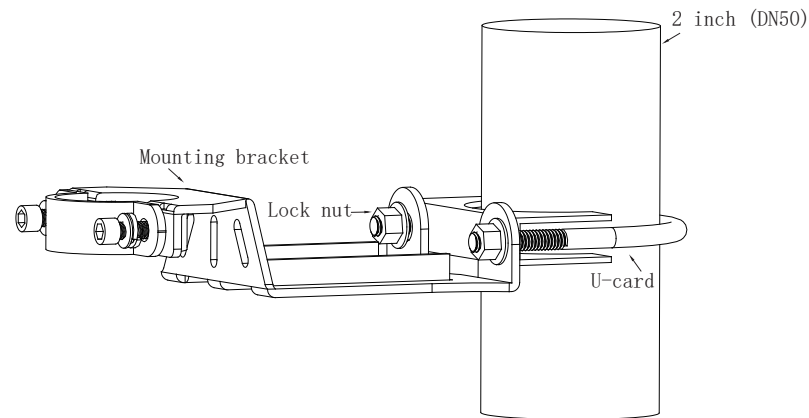


Note 1: the mounting bracket (ZJ03) shall be purchased separately.

Note 2: M8 screws should be purchased by yourself.

-Pipe installation

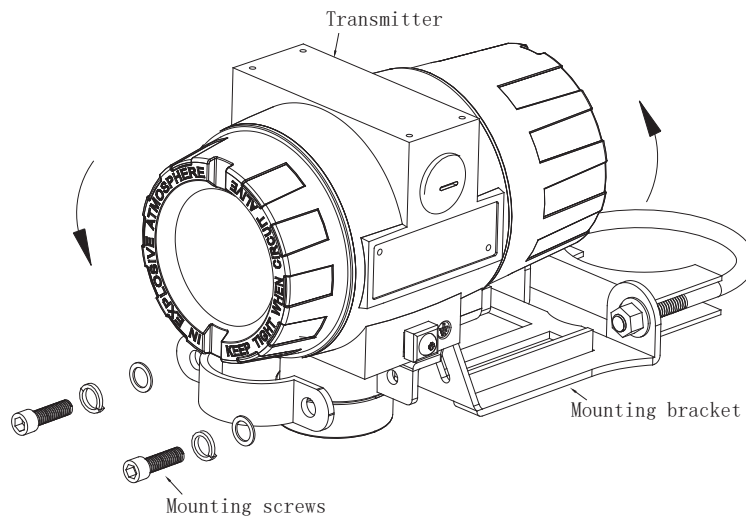
It can be directly installed on 2-inch (DN50) metal pipe, as shown in the following figure:



Note 1: mounting bracket (ZJ03) and U-card (zju01) shall be purchased separately.

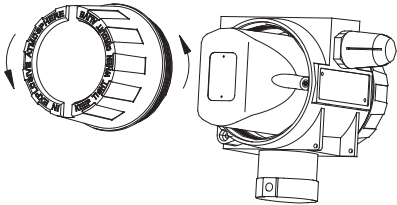
-Transmitter installation

Install the transmitter in the corresponding position and lock the mounting screws (attached to the mounting bracket). The installation direction can be adjusted by yourself, as shown in the following figure:

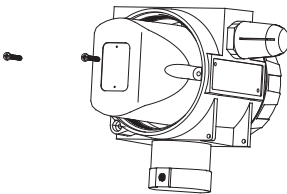


Replace the battery

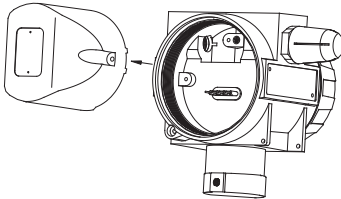
① Unscrew the sensor rear cover



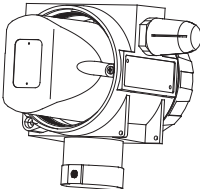
② Remove the battery fixing screw



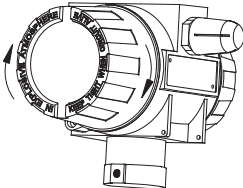
③ Remove the old battery in the direction of the arrow



④ Press the new battery into the pin and lock the fixing screw

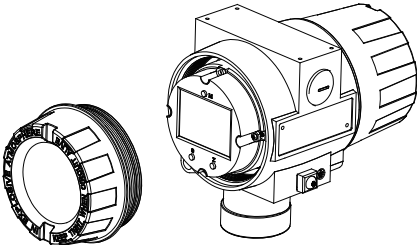


⑤ Replace the sensor rear cover

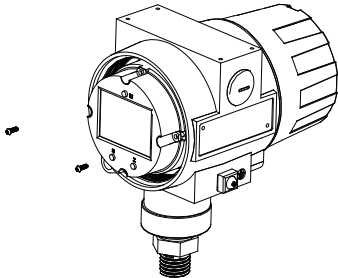


Change display direction

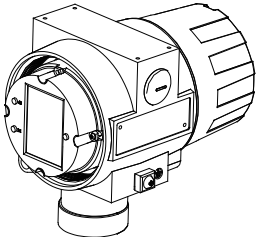
① Unscrew the front cover of the sensor



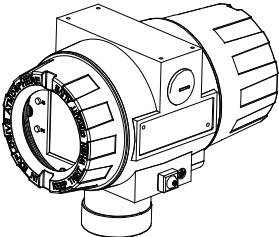
② Remove the display screen fixing screws



③ Adjust the display direction (up, down, left and right) according to the site needs and lock the display screen fixing screws



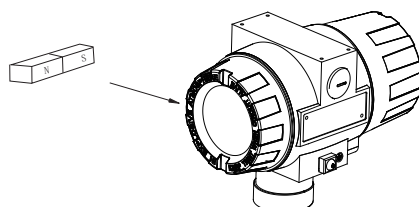
④ Replace the front cover of the sensor



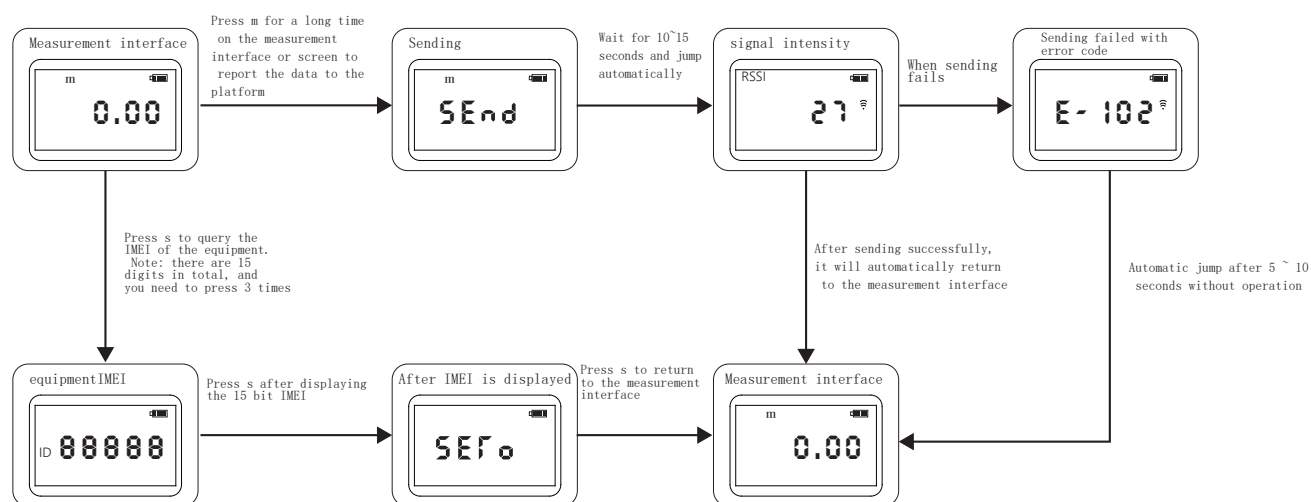
Key parameter setting

-Magnetic induction wake-up

The magnet swings in front of the screen to wake up the LCD screen display



Header key: M key - long press for 5S to report the data to the platform, s key - to view the equipment IMEI



EMC statement

Applicable Directive: electromagnetic compatibility Equipment Directive 2014 / 35 / EU.
CE marking indicates that the product meets the requirements of applicable EU standards.
The user must ensure that the whole equipment meets all use standards.

first start-up

-  **Warning!**
a) Before startup, the user must check whether the transmitter is installed correctly and whether there is obvious damage.
-  **Warning!**
b) The transmitter must be started and operated by professional technicians who read and understand this operation manual.
-  **Warning!**
c) The transmitter is only applicable to the working conditions that meet the technical requirements!

Disassembly and after sales

During the warranty period, the products are tested by the technicians of our factory and belong to quality problems, and the company shall bear all maintenance costs;
Warning!
Please be sure to clean up the residual media before returning, especially the substances harmful to human health, such as corrosive, toxic, carcinogenic or radioactive substances;
Please keep the warranty card and certificate, and return with the product during maintenance;
If the transmitter fails, please contact our after-sales service. After confirming the problem, you need to send the transmitter back to our company for maintenance. Please attach the following information:
Description of site environment;
Fault phenomenon;
Receiving address and contact information;

Adjustment

Zero and full scale drift may occur during the service life of the transmitter.
If the above phenomena occur after long-term use, it is recommended to send the transmitter back to our company for calibration to ensure high accuracy.

Maintenance and cleaning

maintain

This level transmitter requires no maintenance.
Maintenance can only be carried out by the manufacturer.

clean

Wrong detergent

- Using the wrong detergent will damage the label of the product.
- Do not use irritant cleaners.
- Do not use harmful or sharp sanitary ware.
- Do not use abrasive rags or sponges.

Correct detergent

- Clear water
- Traditional detergent

Cleaning products

Before cleaning, the level transmitter needs to be depressurized and powered off. Wipe the transmitter surface with a soft damp cloth.

storage and transportation

The transmitter shall be packed in a strong carton (wooden case is required for large instruments). It is not allowed to move freely in the carton. It shall be handled with care and rough loading and unloading is not allowed. The storage location shall meet the following conditions:

-  a) Rain proof and moisture-proof.
-  b) Free from mechanical vibration or impact.
-  c) Temperature range - 30 ~ 70 °C.
-  d) The relative humidity shall not be greater than 90% (no condensation).
-  e) The environment does not contain corrosive gases.