#### **Preface**

- Thank you for purchasing our product.
- This manual is about the various functions of the product, wiring methods, setting methods, operating methods, troubleshooting methods, etc.
- Please read this manual carefully before operation, use this product correctly to avoid unnecessary losses due to incorrect operation.
- After you finish reading, please keep it in a place where it can be easily accessed at any time for reference during operation.

#### Note

- Modification of this manual's contents will not be notified as a result of some factors, such as function upgrading.
- We try our best to guarantee that the manual content is accurate, if you find something wrong or incorrect, please contact us.
- The content of this manual is strictly prohibited from reprinting or copying.

#### Version

U-P260G-MYEN1

# **Safety Precautions**

In order to use this product safely, be sure to follow the safety precautions described.

#### About this manual

- Please submit this manual to the operator for reading.
- Please read the operation manual carefully before applying the instrument.
   On the precondition of full understanding.
- This manual only describes the functions of the product. The company does not guarantee that the product will be suitable for a particular use by the user.

### Precautions for protection, safety and modification of this product

- To ensure safe use of this product and the systems it controls, Please read carefully the operation manual and understand the correct application methods before putting into operation, to avoid unnecessary losses due to operation mistakes. If the instrument is operated in other ways not described in the manual, the protections that the instrument give may be destroyed, and the failures and accidents incurred due to violation of precautions shall not be borne by our company.
- When installing lightning protection devices for this product and its control system, or designing and installing separate safety protection circuits for this product and its control system, it needs to be implemented by other devices.
- If you need to replace parts of the product, please use the model specifications specified by the company.
- This product is not intended for use in systems that are directly related to
  personal safety. Such as nuclear power equipment, equipment using
  radioactivity, railway systems, aviation equipment, marine equipment,
  aviation equipment and medical equipment. If applied, it is the responsibility

of the user to use additional equipment or systems to ensure personal safety.

 Do not modify this product. The following safety signs are used in this manual:



Hazard, if not taken with appropriate precautions, will result in serious personal injury, product damage or major property damage.



Warning:Pay special attention to the important information linked to product or particular part in the operation manual.



- Confirm if the supply voltage is in consistent with the rated voltage before operation.
- Do not use the instrument in a flammable and combustible or steam area.
- To prevent from electric shock, operation mistake, a good grounding protection must be made.
- Thunder prevention engineering facilities must be well managed: the shared grounding network shall be grounded at is-electric level, shielded, wires shall be located rationally, SPD surge protector shall be applied properly.
- Some inner parts may carry high voltage. Do not open the square panel in the front except our company personnel or maintenance personnel acknowledged by our company, to avoid electric shock.
- Cut off electric powers before making any checks, to avoid electric shock
- Check the condition of the terminal screws regularly. If it is loose, please tighten it before use.
- It is not allowed to disassemble, process, modify or repair the product without authorization, otherwise it may cause abnormal operation, electric shock or fire accident.
- Wipe the product with a dry cotton cloth. Do not use alcohol, benzine

or other organic solvents. Prevent all kinds of liquid from splashing on the product. If the product falls into the water, please cut off the power immediately, otherwise there will be leakage, electric shock or even a fire accident

- Please check the grounding protection status regularly. Do not operate
  if you think that the protection measures such as grounding protection
  and fuses are not perfect.
- Ventilation holes on the product housing must be kept clear to avoid malfunctions due to high temperatures, abnormal operation, shortened life and fire.
- Please strictly follow the instructions in this manual, otherwise the product's protective device may be damaged.



- Do not use the instrument if it is found damaged or deformed at opening of package.
- Prevent dust, wire end, iron fines or other objects from entering the instrument during installation, otherwise, it will cause abnormal movement or failure.
- During operation, to modify configuration, signal output, startup, stop, operation safety shall be fully considered. Operation mistakes may lead to failure and even destruction of the instrument and controlled equipment.
- Each part of the instrument has a certain lifetime, which must be maintained and repaired on a regular basis for long-time use.
- The product shall be scrapped as industrial wastes, to prevent environment pollution.
- When not using this product, be sure to turn off the power switch.
- If you find smoke from the product, smell odor, abnormal noise, etc.,
   please turn off the power switch immediately and contact the company in time.

### **Disclaimer**

- The company does not make any guarantees for the terms outside the scope of this product warranty.
- This company is not responsible for damage to the instrument or loss of parts or unpredictable damage caused directly or indirectly by improper operation of the user.

# Package contents

| Serial number | Item Name    | Quantity |
|---------------|--------------|----------|
| 1             | Level sensor | 1        |
| 2             | Manual       | 1        |
| 3             | Certificate  | 1        |

After opening the box, please confirm the package contents before starting the operation. If you find that the model and quantity are incorrect or there is physical damage in appearance, please contact us.

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## **Chapter 1 Product Overview**

High temperature level transmitter is used to measure the liquid level of higher temperature liquid medium. The principle is that the measured liquid medium compresses the air in the air collecting barrel, and the air pressure is transmitted to the sensitive element through the capillary tube, and the sensitive element itself is not related to the measured liquid. The medium is in direct contact, so the transmitter can be used in a higher temperature medium environment. At the same time, the built-in micro-signal amplifying and processing circuit can be directly connected with the computer interface card, control instrument, smart instrument or PLC for remote transmission.

It is widely used in environmental protection, water conservancy, water supply, industrial process control, variable frequency water supply and other higher temperature medium liquid level measurement.

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# **Chapter 2 Features**

- Compact structure and easy to install.
- Advanced diaphragm/oil-filled isolation technology.
- High stability and high reliability.
- Anti-vibration and anti-radio frequency interference.
- 316L stainless steel isolation diaphragm structure.
- High-precision, all-stainless steel structure.
- Micro amplifier, voltage and current signal output.
- Strong anti-interference and good long-term stability.
- Diversified forms and structures, easy to install and use.
- Wide measuring range, which can measure absolute pressure, gauge pressure and sealing reference pressure.
- Vibration and shock resistance.

# **Chapter 3 Technical Parameters**

Power supply: 4-20mA (18-36V); 4-20mA with display (12-36V); 0-5V, 0-10V

(12-32V)

Output: 4~20mA; 0~5V; 0-10V

Accuracy: 0.5 level

Measuring range: 0m~1m····10m Pressure type: gauge pressure

Compensation temperature: 0 °C ~60 °C

Working temperature: -20°C ~85°C Medium temperature: -40°C ~200°C Storage temperature: -40°C ~125°C

Zero output temperature drift:  $\pm 1.5\%$ FS (0°C $\sim$ 60°C)

Full-scale output temperature drift:  $\pm 1.5\%$ FS (0 $^{\circ}$ C $\sim$ 60 $^{\circ}$ C)

Overload pressure: 300%FS

Long-term stability:  $\pm 0.2\%$ FS/year

Response time: ≤10ms (up to 90% FS) Insulation resistance: 100M \( \Omega / 250VDC \)

Protection level: IP68

Media compatibility: respective media compatible with 304 stainless steel

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# **Chapter 4 Dimensions and installation**

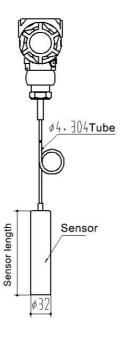


Figure 1 High temperature level transmitter

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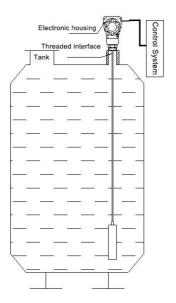


Figure 2 Threaded installation

# **Chapter 5 Electrical connections**

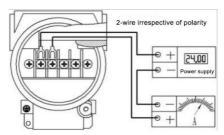


Figure 3 Current output

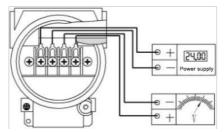


Figure 4 Voltage output

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# **Chapter 6 Use and Installation**

- (1) The high temperature transmitter has an installation structure such as interface thread, flange, etc., which can be flexibly selected according to the site. This example is the  $M35 \times 1.5$  thread installation method, as shown in Figure 2.
- (2) When the level transmitter is installed, it can be put into water or other liquids, and the cable is led out from the wiring terminal in the shell to the display instrument, secondary instrument or control room.
- (3) Choose a place that is easy to operate and maintain for installation.
- (4) Install as far away as possible from the vibration source.
- (5) When the level transmitter is installed, the probe should sink into the bottom of the container.
- (6) The probe should be placed in the water vertically, and the angle with the vertical line should not exceed 30 degrees.
- (7) If there are many impurities in the liquid medium, it is recommended to select a filter screen cover.
- (8) The cable part on the ground needs to be protected or elevated.
- (9) If used in moving water, the level transmitter should be fixed.
- (10) The probe should be cleaned regularly to avoid blockage of the pressure inlet.
- (11) The accumulation of water in the capillary tube will cause inaccurate measurement and unstable output. You can take out the gas collecting bucket regularly and drain the capillary tube to eliminate the fault.

## **Chapter 7 Notes**

- (1) Be careful when handling and installing the level transmitter to avoid collisions that may affect the performance of the circuit.
- (2) For electrical connection, please strictly follow the wiring method. Incorrect wiring will cause damage to the amplifier circuit.
- (3) Do not use capillary tubes to lift heavy objects other than the product.
- (4) The capillary tube is relatively thin and cannot be repeatedly bent. During installation and use, the capillary tube should be prevented from abrasion, puncture and scratches. If the above problems exist on site, the capillary tube should be protected. Due to the occurrence of such problems, the manufacturer shall charge the capillary fee for maintenance.
- (5) When the product is abnormal, please do not open it for repair without authorization. Product problems caused by human causes are not covered by our company's warranty.
- (6) This product is forbidden to be used in explosion-proof places.

# **Chapter 8 Warranty & After-sales Service**

We promise to the customer that the hardware accessories provided during the supply of the instrument have no defects in material and manufacturing process. From the date of the purchase, if the user's notice of such defects is received during the warranty period, the company will unconditionally maintain or replace the defective products without charge, and all non customized products are guaranteed to be returned and replaced within 7 days.

#### Disclaimers:

- During the warranty period, product faults caused by the following reasons are not in the scope of Three Guarantees service
- Product faults caused by improper use by customers.
- Product faults caused by disassembling, repairing and refitting the product.

#### After-sales service commitment:

- We promise to deal with the customer's technical questions within 2 hours.
- For the instruments returned to the factory for maintenance, we promise to issue the test results within 3 working days and the maintenance results within 7 working days after receiving them.

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