

Level transmitter

# Supmea

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## Preface

- Thank you for purchasing submersible pressure level transmitter.
- This manual is illustrating various functions, wiring methods, setting methods, operation methods, fault handling methods, etc. of the product.
- Please read this manual carefully before operating and using it to avoid unnecessary losses caused by the false operation.
- After reading, please keep it in a place convenient for reading at any time for reference during operation.

## Note

- Modification of this manual's contents will not be notified due to function upgrading, etc.
- We try our best to guarantee that the manual content is accurate, if you find something wrong or incorrect, please contact us.
- It is strictly prohibited to reprint or copy the contents of this manual.
- This product is forbidden to use in explosion-proof occasions.

## Version

U-SUP-P260-M2-EN1

## 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

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 any physical damage in appearance, please contact us.

No.	Item Name	Quantity	Remarks
1	Level transmitter	1	
3	Manual	1	
4	Certificate	1	

## Contents

Chapter 1 Overview.....	1
Chapter 2 Main Features.....	2
Chapter 3 Dimension and Structure.....	3
Chapter 4 Specifications.....	4
Chapter 5 Wiring.....	5
Chapter 6 Installation.....	6
Chapter 7 Notes.....	12
Chapter 8 Warranty & After-sales Service.....	14

## Chapter 1 Overview

Level transmitter adopts high reliable silicon piezoresistive pressure sensor as the pressure-sensitive core of the products, and outputs standard industrial applications and networking signals through automatic temperature compensation, programmable digital circuit correction and signal conditioning. The production process of the products follows the rigorous work style and fine process control of military enterprises. Each product is carefully designed with well-chosen components and fixed crafts through pressure cycling, aging, environmental simulation test and other methods, to ensure that each product is stable and reliable.

With its excellent accuracy and reliability, P260-M3 faithfully serves all kinds of industries with demands for fluid level measurement, especially the coal mining, oil field, petrochemical, civil explosion, medicine, water, shipping and other industries.

## **Chapter 2 Main Features**

- Unified design, anti-interference
- Welded structure
- IP68 waterproof

## Chapter 3 Dimension and Structure

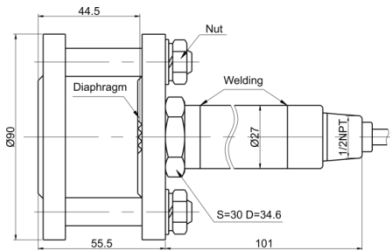


Figure 1

## Chapter 4 Specifications

Range	0m~0.5m...100m
Overload pressure	$\leq 200\%FS$
Pressure type	Gauge pressure
Accuracy	0.5%
Stability	$\pm 0.2\%FS/Year$
Zero temperature drift	$\pm 0.03\%FS/^{\circ}C$
Sensitivity temperature drift	$\pm 0.03\%FS/^{\circ}C$
Compensation temperature	$(0\sim 50)^{\circ}C$ ( $\leq 2m$ )
	$(-10\sim 60)^{\circ}C$ ( $> 2m$ )
Medium temperature	$(-30\sim 65)^{\circ}C$
Supply	$(12\sim 30)VDC$
Output	$(4\sim 20)mA$
Load resistance	Current mode: $\leq (U-12)/0.02(\Omega)$
Ingress Protection	IP68

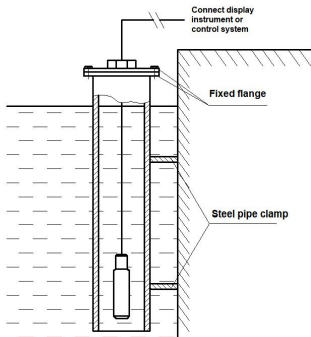


## Chapter 5 Wiring

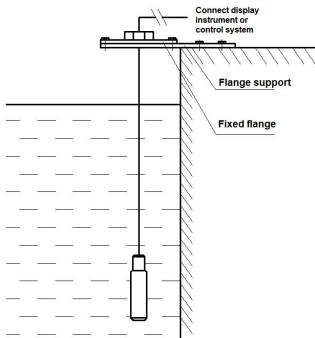
- Red:VCC
- Green:P I out
- Yellow:T I out
- Black:PE

## Chapter 6 Installation

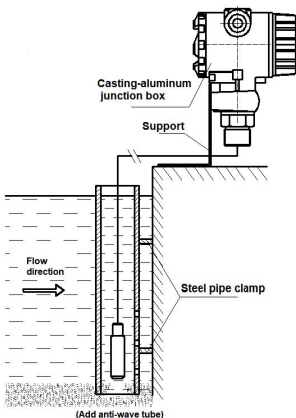
- In the measurement of the reservoir, oil tank and other liquids, in order to prevent the displacement of the transmitter in the long-term measurement, it is recommended to adopt the fixed pipe installation. Fix a steel pipe or plastic pipe with an inner diameter of greater than  $\phi 30\text{mm}$ , and make sure the pipe is connected from top to bottom. Put the transmitter into the pipe at the corresponding depth, and fix the cable and junction box at the outlet of the pipe.



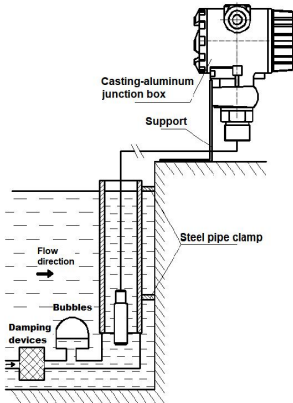
- In the measurement of still liquid, the level transmitter can be directly put into the liquid, and the cable and junction box can be fixed at the outlet.



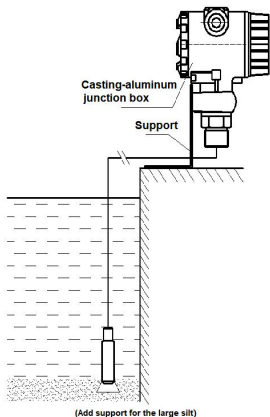
- When measuring the liquid level in the flowing liquid, insert a steel pipe with an inner diameter of about  $\Phi 30\text{mm}$  in the liquid, and open two to three holes of about  $\Phi 5\text{mm}$  in the high and low positions of the pipe in the reverse direction of the liquid flow to allow the liquid to enter the pipe easily, and the cable and junction box are fixed at the outlet.



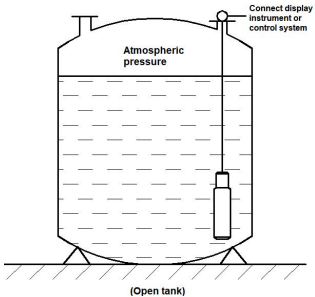
- When measuring liquid level in a fluid with large fluctuations, it is recommended to add damping devices as shown in the figure to reduce the impact of fluctuations on liquid level measurement, and to fix the cable and junction box at the outlet.



- In the liquid level measurement with large silt, it is necessary to install the mounting bracket to prevent the silt from blocking the pressure hole and causing test errors.



- When measuring the still liquid in an open container, the level transmitter can be directly put into the bottom of the container and the cable and junction box can be fixed at the opening of the container.



## Chapter 7 Notes

- Please pay attention to the compatibility between the tested medium and the part of the product contacting the medium.
- Please specify the appropriate measuring range and accuracy requirements when ordering. In order to ensure the stability and accuracy of the product, it is recommended that the measuring range of the pressure transmitter should be 120% of the actual measuring pressure range, and the maximum pressure should be within the measuring range.
- In order to ensure reliable outdoor operation, it is recommended that users order transmitters equipped with lightning protection. During the installation, ensure that the product and power supply are reliably grounded, which can reduce the damage probability of the transmitter caused by lightning.
- The product is vertically installed on the site pressure interface.
- For the medium containing silt and sand, the transmitter head needs to take protective measures such as filtering measures to prevent the pressure tap from blocking or particles scratching the diaphragm.
- In inflammable and explosive environment, please install safety barrier as required, and cable



connection shall be sealed and reliable. Tighten the junction box lid before energizing, and ensure that the inner chamber of the transmitter is isolated from the environment. When cleaning, overhauling or modifying parameters, the power must be cut off completely, then remove the transmitter and move it to the safe environment for processing. Live operation on site is strictly prohibited.

- If the ordered products need metrological verification certificate or other special requirements, please consult with our company and indicate it in the order.

## **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.