

Capacitive Level Transmitter

FST700-201

Product Manual

(V1.1)



● Important statement

Thank you very much for choosing our products, we will serve you sincerely forever. The company pursues excellent quality and pays more attention to excellent after-sales service.

Operation errors will shorten the life of the product, reduce its performance, and may cause accidents in severe cases. Please hand over this manual to the end user and read it carefully before using the product. And please keep it in a safe place for reference when needed. The company reserves the right to modify this manual due to product technology and process updates. If there is any change, no further notice will be given, and the final interpretation of this manual is reserved.

● Product overview

Capacitive liquid level sensor is a special equipment tailor-made for accurate measurement of liquid levels in railway locomotives, automobile fuel tanks, oil tankers, oil depots, etc., with an accuracy of up to 0.5%. The whole machine does not have any movable or elastic parts. It is impact-resistant, easy to install, highly reliable, high-precision, and cost-effective. It can be installed in various liquid level measurement situations to measure the liquid levels of gasoline, oil, various hydraulic oils, etc. Carry out accurate measurement and control.

● Features

- ◇ Accurate measurement and linear compensation design.
- ◇ Anti-surge, overcurrent, reverse polarity protection design.
- ◇ Has anti-interference and anti-vibration characteristics.
- ◇ Suitable for measurement of various non-conductive liquids.

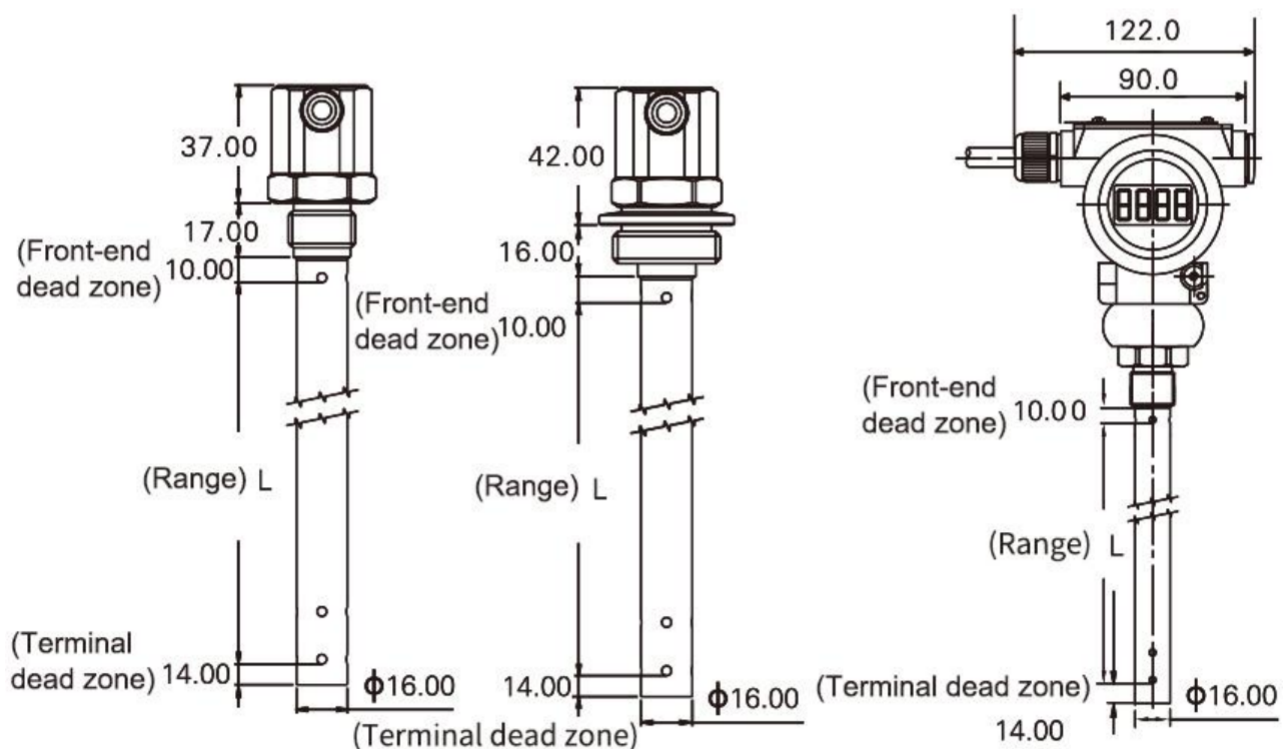
● Technical indicators

Output signal	(4~20) mA	(0~5) V	(0~10) V
Signal line specifications	2 Wire	3 Wire	3 Wire
Supply voltage (DC)	9~30V	9~30V	15~30V
Accuracy	$\pm 0.5\%FS(\geq 600mm)$ $\pm 1\%FS(\geq 400mm)$ $\pm 3\%FS(\geq 300mm)$		
Zero temperature drift	$\pm 0.05\%FS/^{\circ}C$		
Sensitivity temperature drift	$\pm 0.05\%FS/^{\circ}C$		

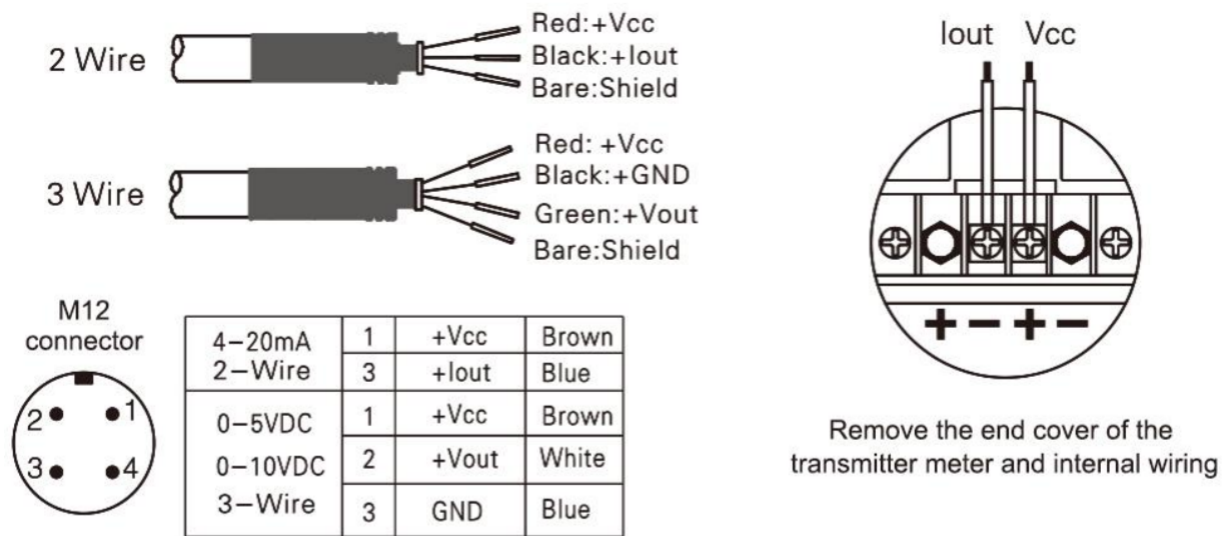
Long term stability (1 year)	±0.1%FS
Ambient temperature	-40°C~+85°C
Storage temperature	-40°C~+125°C
Electrical connections	Direct lead, M12
Threaded connection	M20X1.5, G1/2 or others
Detector temperature resistance	-50°C~+200°C
Protection level	IP65
Measuring medium	Various non-conductive liquid level media such as gasoline and diesel oil

Note: Specific parameters and wiring definitions are subject to the actual product.

● Product dimensions



• Electrical interface and wiring method



• Precautions

1. When installing, please pay attention to the installation method and whether the installation matches. The wrench can only be installed at the hexagonal interface. It is strictly prohibited to install it at the outer tube and tail joint of the product;
2. When using, pay attention to reliable line connection and correct wiring method. Do not pull the product cable with force to avoid damaging the internal structure of the product;
3. Strictly follow the product wiring diagram and work under the product's allowable excitation voltage. Do not use it with overvoltage;
4. After long-term use of the product, the working medium may block the drainage hole, thereby reducing the output sensitivity of the product. When cleaning the drainage hole of the product, you can use a liquid that can dissolve organic matter and clean it multiple times. It is prohibited to use any instrument to extend into the drainage hole. To avoid damaging the ring capacitor insulation film;
5. Do not knock the product to avoid damaging the appearance and internal structure;
6. The product warranty period is one year, and any damage not caused by improper use by the user will be guaranteed or replaced.