PRODUCT OVERVIEW

Brief introduction

Magnetostrictive displacement transmitter is a high-precision and measurable ultra long stroke absolute position measurement transmitter developed using the principle of magnetostriction, which can accurately measure the linear displacement of moving objects. Compared with conductive rubber displacement transmitters, magnetic grid displacement transmitters, resistive displacement transmitters and other products, it has obvious advantages, and one transmitter can be used to measure displacement and velocity, with extremely high performance price ratio.

The structure of a magnetostrictive displacement transmitter consists of a stainless steel housing (including a measuring rod), magnetostrictive wires (waveguide wires), movable magnetic rings (with permanent magnets inside), and electronic components.



Application scope

The common applications of magnetostrictive linear displacement transmitters are as follows:

A. Hydraulic cylinders, cylinder piston positions: mechanical positioning and displacement detection for machine tools, etc; Wood processing, engineering road machinery; Steam turbine and hydro machinery; Simulated motion platform; Food processing, etc.

B. Transforming magnetic rings into magnetic floating balls for liquid level measurement, commonly used for measuring the liquid level height of oil storage tanks or valuable chemical raw materials; Multiple floating balls with different densities can be installed on the same measuring rod to measure the liquid level of layered liquids in the same storage tank.

CHARACTERISTICS AND TECHNICAL PARAMETERS

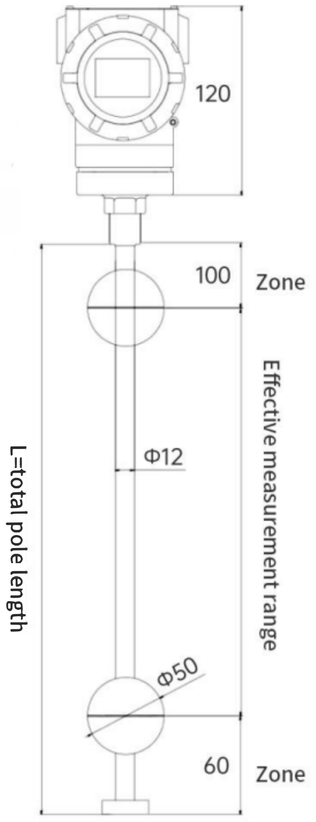
Main features

1. Resistant to harsh operating environments, high reliability, and long lifespan;
2. High precision and high stability;
3. High resolution;
4. Absolute position output;
5. Non contact measurement;
6. Equipped with reverse polarity protection function;
7. Lightning protection and radio frequency interference prevention;
8. Seismic and impact resistance;
9. Exquisite structure and wide adaptability;
10. Easy to install, no need for regular maintenance or calibration.

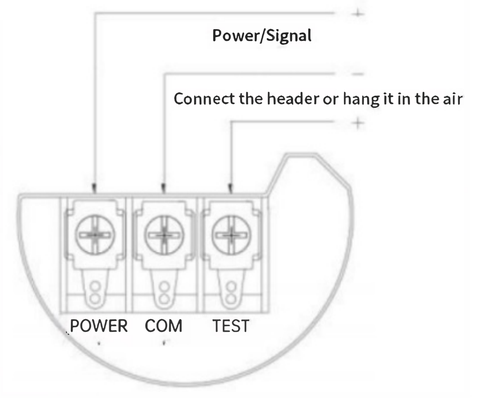
Attribute	Parameter
Power Supply	12~36VDC
Working temperature	Electronic Warehouse:- 40°C~+85°C Measuring rod:- 40°C~+125 C
Range of measurement	Hard rod 500mm~5000mm Retractable soft rod 1000mm~20000mm
Output format	4~20mA+HART; (Digital Communication)
Linear error	Better than ± 0.1% FS, with a minimum absolute error of less than 0.5mm
Repeatability	Better than ± 0.05% FS
Resolving power	Better than ± 0.05% FS
Delay	Better than ± 0.05% FS
Response time	0.2~6ms (based on pole length)
Measuring rod material	1Cr18Ni9Ti, 304SS, 316SS or customized by the user
Connection form	Usually DN50 flange, M20x1.5 (floating ball diameter 45MM) or customized by the user

FLANGE DISTANCE AND SINKING CYLINDER DISTANCE

COMPANY: MM



USAGE MATTERS



Pay attention to

1.Before placing an order or installation, the user should first understand the installation site situation and carefully read the user manual to ensure that the environmental temperature, impact, vibration, pressure, and size of the installation site comply with the allowable installation range of the displacement transmitter. The buyer or user should be responsible for the application, corrosion prevention, and functional selection of the product. The ordered product should meet the requirements of consistent usage environment

2. The measuring rod should not be bent. After use, the product should be returned to the packaging tube; The electronic components or the end of the displacement transmitter are not allowed to be subjected to significant impact or vibration. The displacement transmitter cannot be directly used for chemical reactions or other reasons that affect the displacement transmitter

3. Protective measures should be taken when necessary to protect flammable, explosive, corrosive, steam, and liquid environments that may cause damage.

4. The electronic components of the displacement transmitter should be splash proof but not submerged, and the liquid should not be immersed above the hexagonal base. After installation, the electronic warehouse should be protected

5. The shielded cable of the displacement transmitter must avoid high power power sources, RF signal sources, and other noisy transmission lines

WARNING

1. The installation site should avoid strong electrical equipment, high-frequency equipment, and strong power switch equipment.
2. Avoid the influence of high temperature heat sources and radiation heat sources
3. Try to install it in a dry and ventilated place, avoiding damp and waterlogged areas.
4. Try to avoid direct sunlight and rain, and avoid strong vibrations.
5. There should be ample space near the flowmeter for easy installation and maintenance.
6. Please strictly follow the precautions when using, otherwise the consequences will be borne by yourself.

We strive for the accuracy of the content. If you find any errors, please contact us. The external dimensions are measured manually and may have errors. Please refer to the actual product for accuracy. The content of this manual is strictly prohibited from being reproduced or copied.