

# Magnetostrictive Hydrostatic Level System

## ◆ Overview

The model MHLS magnetostrictive hydrostatic level system is a high-precision static level developed using the principle of magnetostriction. It adopts non-contact measurement method, has long life, strong environmental adaptability, and does not require regular calibration and maintenance. The product is an absolute output, and does not require zeroing when restarting. It has the technical characteristics of high precision, high stability, high reliability and high repeatability. The output adopts the standard Modbus protocol and is the measurement of relative elevation changes between various measuring points of the foundation and structure. It is a special precision instrument that can be widely used in precise measurement scenarios such as settlement or heave of foundation fill structures such as hydropower dams, deep foundation pits, highways, bridges, embankments, oil and gas pipelines, and oil storage tanks.



## ◆ Features

- 80mm measure range, 0.1%F.S accuracy
- Magnetostrictive liquid level measure theory
- High stability, high accuracy
- High temperature resistance, pressure resistance, corrosion resistance
- Temperature range from -40°C to +85°C
- IP67 protection level

## ◆ Application

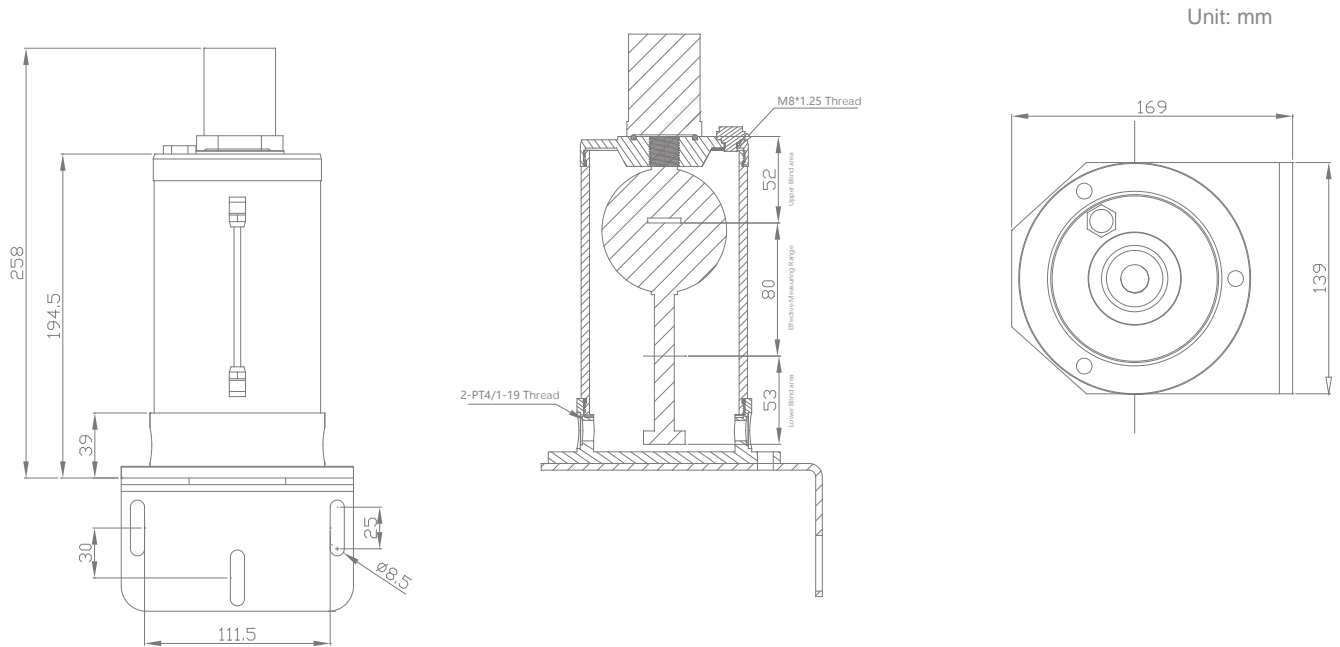
- Subgrade settlement measurement
- Tunnel settlement measurement
- Building settlement measurement
- Bridge settlement measurement
- Dam settlement measurement

## ◆ Technical Parameters

Type	MHLS
Measuring Range	80mm
Accuracy	0.1%FS
Resolution	0.0015%F.S
Repeat Error	≤±0.002%F.S
Nonlinear Error	≤±0.05%F.S(minimum ±50μm) ,25°C
Temperature Characteristics	Sensitivity ≤0.007%F.S/°C
Temperature Range	-40°C~+85°C
Load Capacity	32 sensors
Supply Voltage	12V~24VDC
Output	RS485
IP Class	IP67
Size	ø100×255mm

# Magnetostrictive Hydrostatic Level System

## ◆ Size



## ◆ Electrical connections

1. The color definition of signal cables is as follows:

Color of Signal Cable	Definition
Red	Vcc+
Black	GND
Brown	RS485A
Green	RS485B

- Power supply requirements: +8~30VDC, recommend 12V~24VDC, the power supply current for each sensor must be greater than 450mA;
- The sensor's signal cable routing must avoid high-power electromechanical equipment, high-voltage cables and places with strong electromagnetic radiation.