

LSG300 SERIES

SUBMERSIBLE LEVEL TRANSMITTER

FEATURES

- ◎ Piezoresistive diffused silicon core
- ◎ Probe insertion measurement method for easy installation
- ◎ Multiple protective designs offering high durability
- ◎ LCD display option available
- ◎ Various styles to suit diverse industrial applications
- ◎ Anti-corrosion stainless steel construction, ideal for a wide range of environments



INTRODUCTION

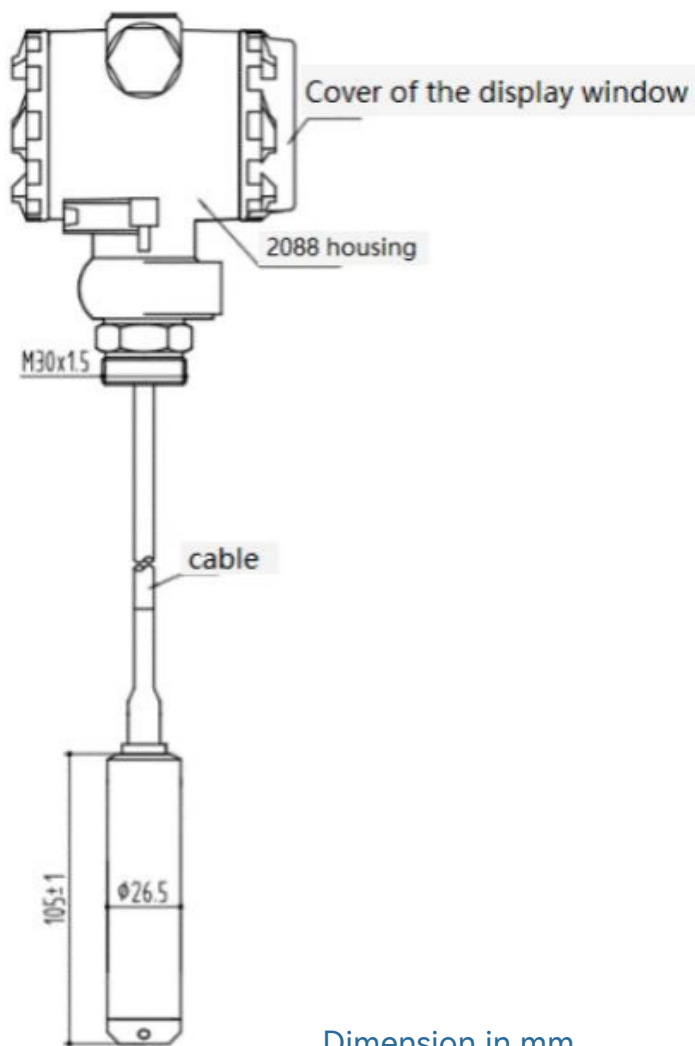
The LSG300 series Smart Submersible Level Transmitter precisely measures the static pressure of liquid in relation to its depth using a high-performance piezoresistive diffused silicon pressure sensor. This measurement is then converted into a standard current or voltage output via a signal conditioning circuit, creating a direct linear correlation between the output signal and liquid depth. The device is compact and highly accurate, allowing for easy submersion directly into the liquid to measure the distance from the transmitter's end to the liquid surface. It is ideal for liquid level measurement and control in industries such as petroleum, chemicals, power plants, urban water supply, and hydrological exploration. The LSG300 has undergone extensive aging and stability testing to ensure reliable performance in harsh outdoor environments. Additionally, it offers on-site liquid level display and supports zero shift and full-scale span shift adjustments. Both HART and RS485 communication protocols are available.

SPECIFICATIONS

Range	0~1m...5m...20mH ₂ O Other ranges on request
Power supply	12 ~ 36V
Output signal	4~20mA(Optional +HART), RS485
Accuracy	≤ ±0.5%FS(Range>1mH ₂ O) ≤ ±1%FS(Range ≤ 1mH ₂ O)
Operating temp.	-20°C ~85°C
Zero temp. coefficient	Range >4mH ₂ O:±1.5%FS (-10~70°C) Range 1~4mH ₂ O:±3%FS(0 ~ 60°C)
Span temp. coefficient	Range >4mH ₂ O:±1.5%FS (-10~70°C) Range 1~4mH ₂ O:±3%FS(0 ~ 60°C)
Overpressure	200%FS~300%FS
Insulation	200MΩ/250VDC
Long term stability	±0.2%FS/year

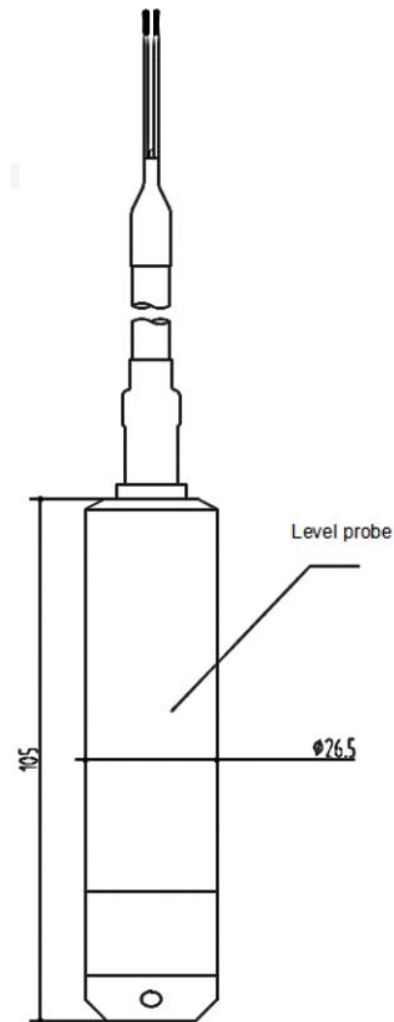
Response time	≤ 1ms (Up to 90%FS analogue circuit board) ≤ 100ms (Up to 90%FS digital circuit board)
Protection	IP68
Material	Stainless steel for level probe Polyurethane wire for cable
Medium compatibility	Media compatible with stainless steel 304

DIMENSION



Dimension in mm

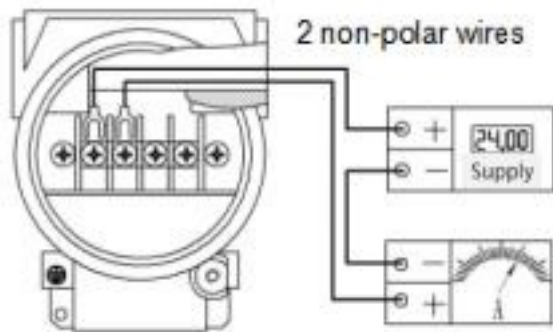
2088 housing with display



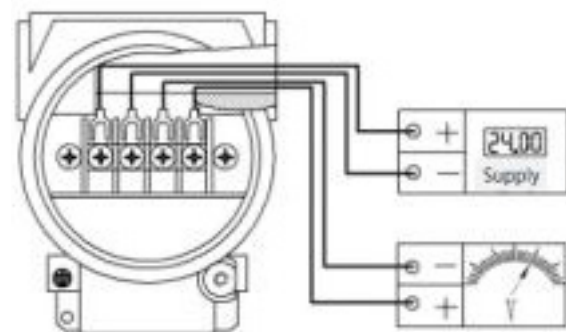
Dimension in mm

Cable outlet

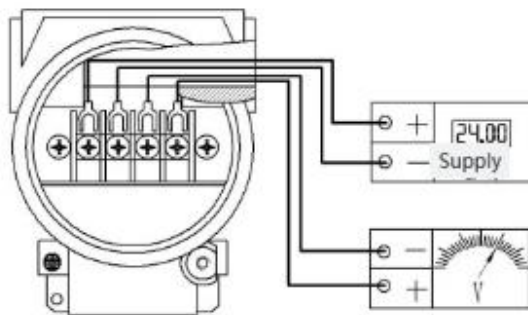
WIRING



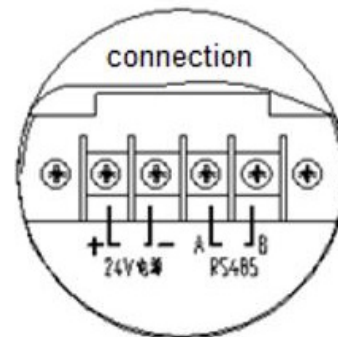
Current output



4~20mA+HART



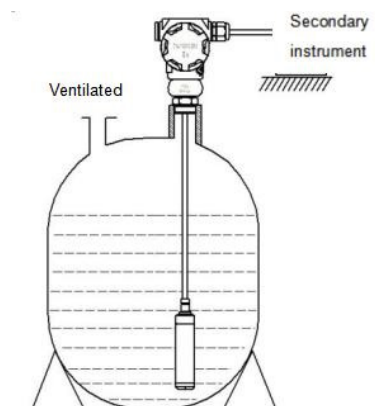
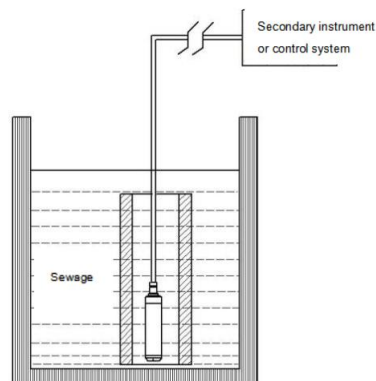
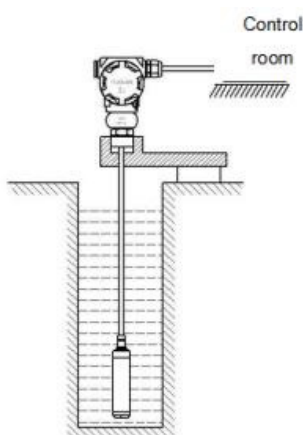
Voltage output



RS485

INSTALLATION

Installation in still water (deep wells, pools, liquid tanks, etc.)



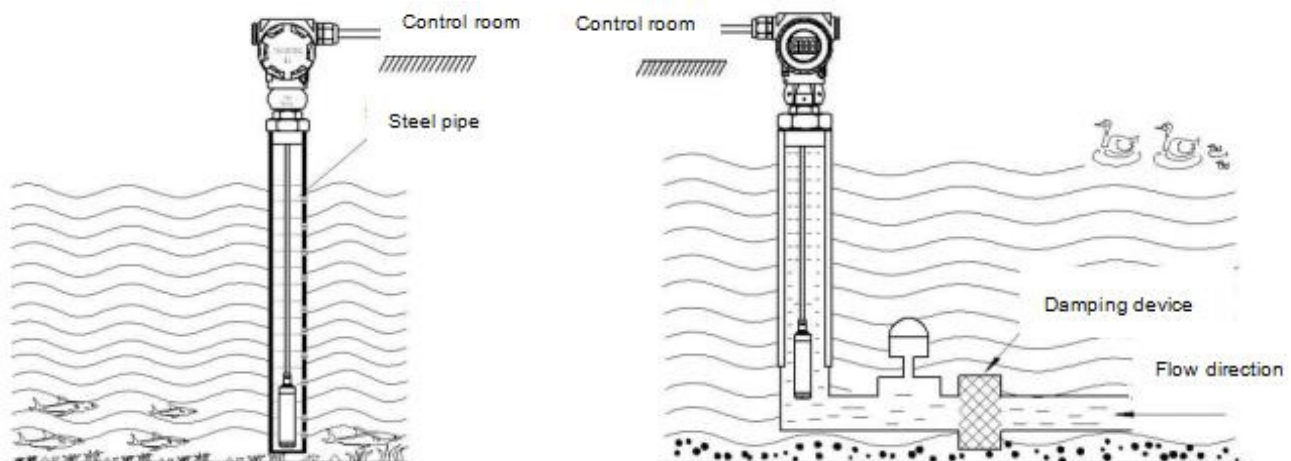
INSTALLATION TIPS

To measure the level of stationary fluid in an open container, position the level transmitter vertically at the bottom of the container and secure the cable connecting the transmitter to the junction box at the container's opening.

For media with higher viscosity (e.g., sewage tanks), a casing or bracket can be installed to ensure the transmitter is properly positioned at the bottom of the container.

When installing outdoors, place the transmitter's terminal box in a well-ventilated, dry area, away from direct sunlight and rain. This helps prevent overheating of the enclosure and protects the internal circuit board from water damage.

Installation in moving water (rivers, lakes, etc.)



INSTALLATION TIPS

1) To measure the water level in flowing water with significant fluctuations, insert a steel pipe with an inner diameter of approximately 5 cm into the water channel. Drill several holes, each about $\Phi 5$ in diameter, on the side of the pipe opposite the flow direction to allow water to enter. Secure the cable and junction box at the pipe's outlet.

2) If the water channel experiences large fluctuations or heavy sediment, install a damping device to filter out sediment, mitigate the effects of dynamic pressure and waves, and ensure accurate measurements.

ORDER FORMAT

LSG300-1ML1MAD1PE

XX

Range	Code
0~1mH2O	1M
0~4mH2O	4M
...	
0~20mH2O	20M

Cable length	Code
1 meter	L1
2 meters	L2

Output signal	Code
4~20mA	MA
4~20mA+HART	CH
RS485	R4

Customization	Code
Standard version	Null
Special or customized versions available on request	

Cable material	Code
PUR cable	Null
PE cable	PE
F46 cable	F46
Others on request	

Electrical connection	Code
2088 housing	J1
2088 housing with display	D1
Cable output	N1

Example:

LSG300-1ML1MAD1PE, LSG300 series, range 1 meter, cable 1 meter, 4~20mA output signal, 2088 housing with display, PE cable.