

Submersible Level Transmitter

HSL100 / HSL200 Series

Introduction

Based the principle that hydrostatic pressure increases with the liquid depth, HSL200 uses a submersible pressure sensor to measure the static pressure of the liquid column above the sensor, which is proportional to the liquid level, allowing for accurate determination of the liquid height in a tank or vessel.



Characteristics

High stability, high reliability

Accuracy 0.5%, 0.2%

Suitable for corrosive liquid

4...20mA output

On-site calibration

Applications

Tank, vessel level measurement

Overfilling monitoring

Water treatment

Drainage system

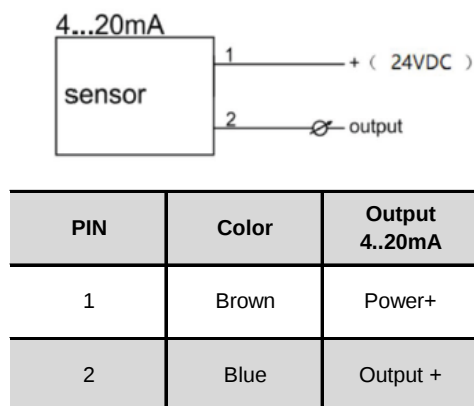
Chemical processing

Specifications

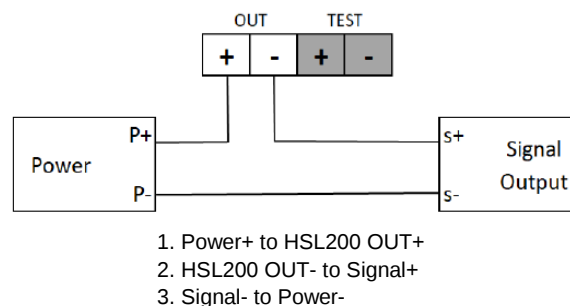
Measuring range	Up to 5 bar (164ft / 50m water column)
Accuracy	0.5%, 0.2%
Output	4...20mA
Linearity	0.5%
Repeatability	≤ 0.05%
Stability	<0.1% FS / year
Temperature effect	Tk>0.02%FS/K
Operating voltage	24VDC±20%
Temperature	Operating temperature: -4...176°F / -20...80°C Medium temperature: -4...176°F / -20...80°C Storage temperature: -4...176°F / -20...80°C
Material	Transmitter housing: Aluminum (HSL200) Sensor: Stainless steel 316L / PTFE Rope: PUR / PTFE
Process connection (HSL200)	Thread: M42 x 1.5 Flange: DN50 / DN80 (EN 1092-1) Flange: 2" / 3" ANSI Flange (ASME B16.5)
Protection class	Sensor: IP68

Wiring

HSL100 Series

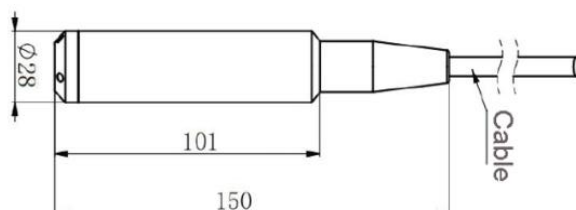


HSL200 Series



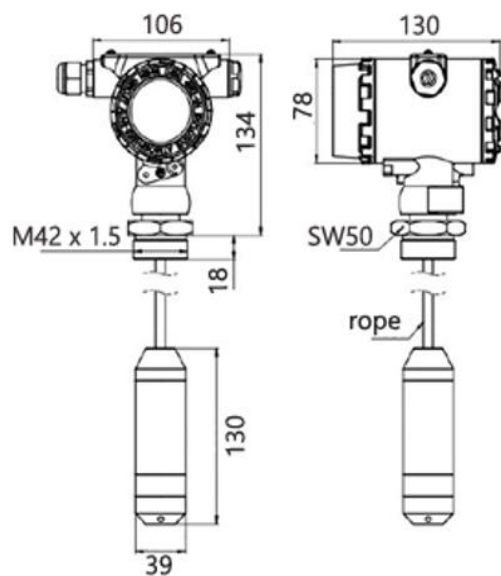
Dimension in mm

HSL100 Series

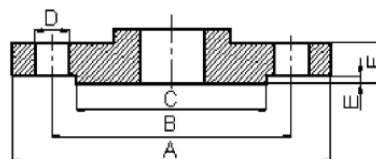
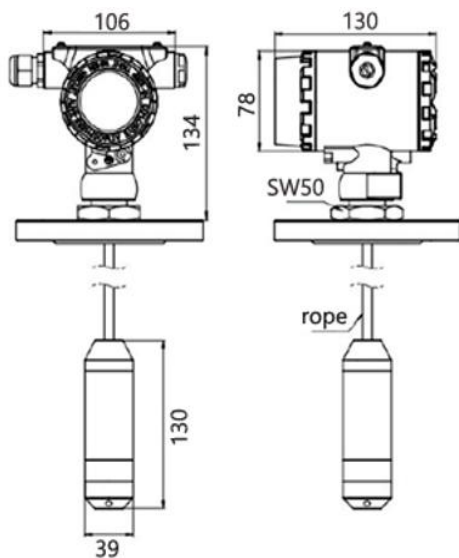


HSL200 Series

Thread connection



Flange connection



DN	A	B	C	D	E	F	Bolt	Bolts Number
50	165	125	99	18	2	20	M16	4
80	200	160	132	18	2	20	M16	8

Order Code

Example: HSL200-AR025E5M4ASM42

1. Model

HSL100-	Economy Submersible Level Transmitter
HSL200-	Submersible Level Transmitter with Local Display

2. Measuring range

R025	0...0.25 bar (0...2.5m H ₂ O column)
R035	0...0.35 bar (0...3.5m H ₂ O column)
R040	0...0.4 bar (0...4m H ₂ O column)
R060	0...0.6 bar (0...6m H ₂ O column)
R100	0...1 bar (0...10m H ₂ O column)
R200	0...2 bar (0...20m H ₂ O column)
R500	0...5 bar (0...50m H ₂ O column)

Please choose from 0...5 bar.
HSL works based on the principle that hydrostatic pressure increases with the liquid depth, the pressure is proportional to the liquid level. For water, 1 bar is 10m water column.

3. Accuracy

A	0.2%
B	0.5%

4. Sensor material

S	Stainless steel 316L
P	PTFE

5. Sensor diameter

A	28mm
B	39mm (Standard)
C	46mm

6. Rope material

A	PUR
B	PTFE

7. Display (Apply to HSL200 only)

N	None
E	LCD display

8. Process connection (Apply to HSL200 only)

FA2	Flange: 2" (ASME B16.5 Class 150)
FA3	Flange 3" (ASME B16.5 Class 150)
FU50	Flange: DN50 (EN 1092-1)
FU80	Flange: DN80 (EN 1092-1)
M42	Thread M42 x 1.5
S	other connection on request