

Submersible Level Transmitter

User Manual

PS Series

www.yotochn.net



Ordering Code

PS - ————— Blank: Direct cable S: Shell head M: LED display

Range Description: 0-200m H₂O for option
 300: 4-20mA 205: 0-5V 215: 1-5V 210: 0-10V

1: M20X1.5 Standard 2: G1/2

PS series Submersible Level Transmitter

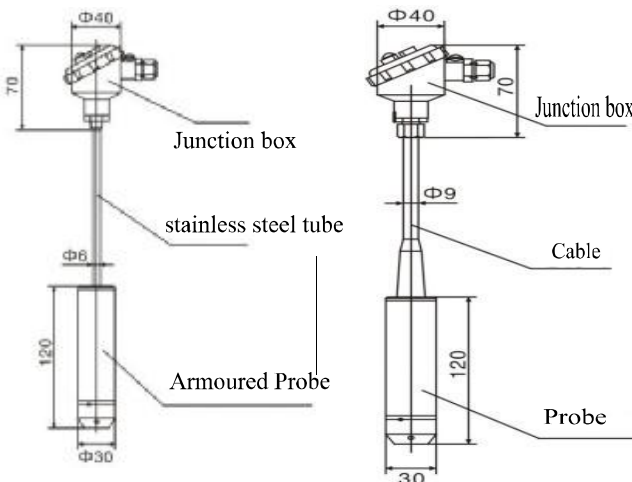
Example: PS1300-10mH₂O

It means thread size M20X1.5 standard, 4-20mA output, range 0-10m water

Technical Data

Measuring range	0 to 5m H ₂ O... 0 to 200m H ₂ O
Pressure type	Gauge pressure, absolute pressure
Accuracy	0.5%F.S (including linearity, repeatability and hysteresis)
Long term stability	±0.2%F.S. per year
Output signal	4 ~ 20mA (2-wire), 1 ~ 5V (3-wire), 0 ~ 5V (3-wire)
Power supply	12 ~ 36V DC (24V DC)
Response time	10ms
Allowed overpressure	2.5 times full scale
Probe material	1Cr18Ni9Ti
Measuring media	Liquids that can be compatible with 1Cr18Ni9Ti and 316L stainless steel
Working temperature	(-40)°C ~ 85°C
Media temperature	(-30)°C ~ 60°C
Compensated temperature	(-10)°C ~ 60°C

Wire Connection



Electrical connection				
Pin	2-wire	Cable	3-wire	Cable
1	power	Red	Power	Red
2	OUT	Blue/ Green	GND	Black
3			OUT	Blue/ Green
4(E)	Shielded	Yellow	Shielded	Yellow

2-wire	4 ~ 20mA
3-wire	4 ~ 20mA, 0 ~ 20mA
	0 ~ 5V, 0.5 ~ 4.5V, 1 ~ 5V, 0 ~ 10V (DC)

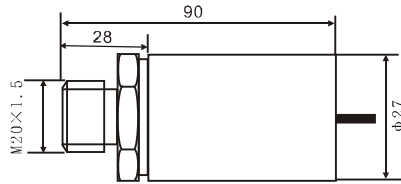
Wiring: Red: Power supply+VCC; Black: signal output (voltage output, green/yellow); Black: GND



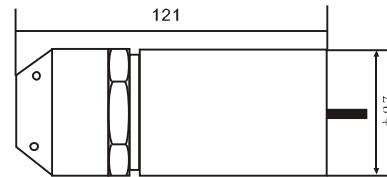
YOTO Electric Co.,LTD
 3rd Floor, No.25 Building, Sicong Industrial Area
 Xiaolan Town, Zhongshan Guangdong China

Tel: 86-760-22112809
 Fax: 86-760-22104808
 Email: sales@yotochn.net

Dimension Size



Connected with the pipe



Submersible type

Introduction

Application:

This product is widely applied to accurate measurement and transmission for depth for liquid, oil, hydraulic fluid and viscous liquid. Such as follows:

- ◆ Pump and open water depth and level
- ◆ Water supply and sewage disposition system
- ◆ Water craft system
- ◆ Chemical industry and pharmaceuticals industry
- ◆ Energy and water processing system
- ◆ Liquid level measurement and monitoring

Working principle:

With hydrostatic measuring principle:

When the liquid level transmitter is put into a measured depth of the liquid, the sensor surface pressure use this formula: $P = \rho \cdot g \cdot H + P_0$

P: Pressure

ρ : Density of the measured liquid

g: The local acceleration of gravity (Debugging at 9.8015)

P_0 : The atmospheric pressure on liquid

H: The depth of the liquid transmitter input

At the same time, through the introduction pressure into the positive pressure cavity of sensor by the conductivity stainless steel, then connect the atmospheric pressure P_0 on the surface with the negative pressure cavity of the sensor the sensor to offset P_0 on the back of sensor, so that pressure sensor measured $P: \rho \cdot g \cdot H$, obviously, through the measuring pressure P. we can get the depth of liquid.