DATASHEET

Level

Capacitance Level Sensor For Corrosive Liquid Level Measurement

Model PWL-CP

Applications

- Chemical tanks
- Diesel/oil/gasoline/water engine tanks
- Agricultural mixing system tanks
- Acid and alkaline liquid tanks
- High temp. and corrosive liquid tanks
- Tanks of Telecom base station
- Sealed pressure tanks and vessels

Level Sensor PWL-CP

Features

- Support local ZERO and SPAN calibration
- Easy to install no need any settings
- No elastic or movable parts, impact of resistance
- Resistance to high Temp. and corrosion
- No effect from different medias, temps
- Anti-adhesion, anti-hanging, anti-foam

Description

PWL-CP level sensor is specially designed for corrosive liquids level measurement. Based on the principle of radio frequency capacitance measurement and adopts tomography technology. It dynamically analyzes various parameters of the sensor in the medium, automatically performs accurate compensation, and the output signal changes linearly and continuously with the change of the liquid level.

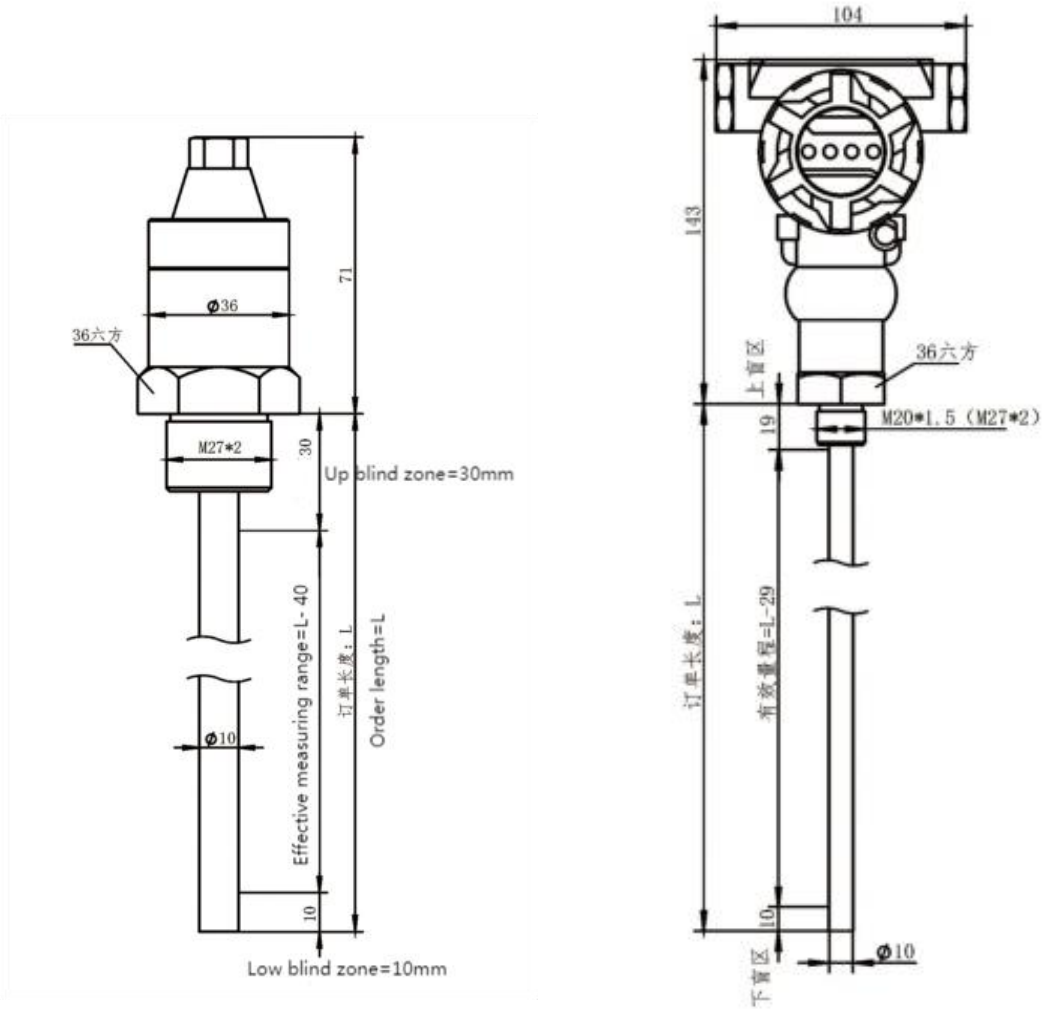
The whole device has no elastic parts and movable parts, is impact-resistant and easy to install. Can be installed in various occasions to accurately measure the liquid level of acid, alkaline, corrosive chemical liquids.

PWL-CP level sensor does not require manual intervention, is automatically calibrated, has no temperature drift, is not affected by changes in the medium, and can correctly output accurate liquid level height signals.

Specifications

Model	PWL-CP			
Probe Diameter	Φ10mm			
Order Length	50-2000mm			
Working Pressure	-0.1MPa~0.6MPa			
Accuracy	±3mm (L ≤ 300mm) 1.0%FS (300 < L ≤ 700mm) 0.5%FS (700 < L ≤ 2000mm)			
Working Temp.	-40℃~+120℃			
Temp. Resistance of Electrode	-60℃~+150℃			
Storage Temp.	-40℃~+85℃			
Working Current	5-10mA (Exclude 4-20mA)			
Electrical Connection	Directly cable outlet			
IP Rating	IP67; IP65 for with display			
Cable Length	1000mm or by customized			
Signal Output & Power Supply	4-20mA(2 wires) 12-28VDC	0-5V(3 wires) 12-28VDC	RS485 Modbus 4.5-36VDC	CAN 4.5-36VDC
Pressure Connection	M27*2.0 male			
Long-term Stability (%FS/year)	≤0.1			
Temp Drift (%FS/℃)	≤0.02 (-40~80℃)			
Electrode Material	PFA			
Junction Box Material	PTFE			
Screw Material	PTFE			
Tolerance of Dimension	±3mm			
Display	LCD display optional			

Dimensions and Drawings



Unit is mm. This is typical dimensions, will vary according to length and requirements.

Electrical Connection

Wire Color	Current 2wires	Current 3wires	Voltage 3wires	RS485	RS232	CAN
Red	Vcc+	Vcc+	Vcc+	Vcc+	Vcc+	Vcc+
Black	Vcc-/Signal+	Vcc-/GND	Vcc-	Vcc-	Vcc-	Vcc-
Yellow	/	Signal+		RS485 A	RS232 RXD	CAN L
Green(Blue)	/	/	Signal+	RS485 B	RS232 TXD	CAN H

How to Order

Example Part Number: **PWL-CP[600]D10P2T1S2A2M1C1D2001**

Model No.	PWL-CP	PWL-CP
Order Length (mm)	50-2000 mm Directly write range in []	[600]
Probe Diameter (mm)	D10=10mm (Typical) DX=By customized	D10
Working Pressure	P1=Atmospheric pressure P2=Sealed pressure (-0.1MPa~0.6MPa) P3=Other pressure	P2
Signal Output	T1=4-20mA(2wires) T2=4-20mA(3wires) T3=0-5V(3wires) T4=RS485(4 wires) T5=CAN T0=Customized	T1
Power Supply	S1=12-28VDC S2=24VDC S3=4.5-36VDC S4=12VDC	S2
Accuracy	A1=±3mm (Typical for L ≤ 300mm) A2=1.0%FS (Typical for 300 < L ≤ 700mm) A3=0.5%FS (Typical for 700 < L ≤ 2000mm) A4=0.2%FS by customization	A2
Housing Material	M1=PFA(Typical) M0=Customized	M1
Process Connection	C1=M27*2 C2=M20*1.5 C0=Others	C1
Display	D1=Without D2=With LCD display	D2
Cable Length	001= 1m cable 002= 2m cable 003= 3m cable ...	001

You may also Need

Reference Picture	Description	Product
	To connect with pressure transmitter and to have a site indicator of the measured value, have high&low value alarms, record and control.	Display/indicator/controller
	Cast aluminum material with IP67 protection level for submersible pressure transmitter. Moisture-proof sealing design, insulation protection against electric shock. To be placed in dry environment or in a cabinet.	Terminal box 0010

***Tell us medium / which application / measuring range / working temperature / signal output / what you wanna to realize, our sales engineer will recommend suitable model for you.*