

DATASHEET

Level

Capacitance Level Sensor For fuel/water/liquid Level Measurement Model PWL-C

Applications

- Fuel/water tanks in construction trucks
- Diesel/oil/gasoline/water/chemical tanks
- Oil tanks of generators
- Underground fuel tanks
- Hydraulic oil level measurement
- Diesel tanks of Telecom base station
- Sealed pressure tanks and vessels

Features

- Support local ZERO and SPAN calibration
- Easy to install no need any settings
- No elastic or movable parts, impact of resistance
- Customize max 250°C high Temp liquid
- No effect from different medias, temps
- Anti-adhesion, anti-hanging, anti-foam



Level Sensor PWL-C

Description

PWL-C level sensor is 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.

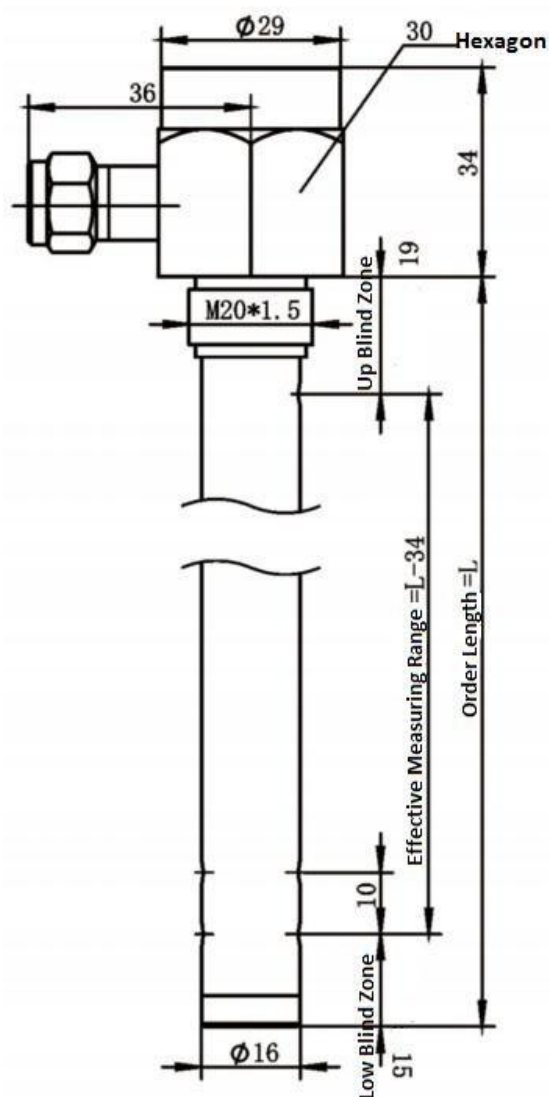
This sensor also integrates GPS technology and GPRS network transmission technology. While measuring, it transmits the liquid level information back to the monitoring center in real time.

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 oil level of gasoline, diesel, hydraulic oil and other weakly corrosive liquids.

Specifications

Model	PWL-C			
Probe Diameter	Φ16mm, Φ19mm, Φ22mm, Φ25mm (according to probe length)			
Order Length	50-3000mm			
Working Pressure	-0.1MPa~0.1MPa (Typical) Can customize for high pressure max 3Mpa			
Accuracy	±3mm (L ≤ 300mm) 1.0%FS (300 < L ≤ 700mm) 0.5%FS (700 < L ≤ 3000mm) 0.2%FS by customization high cost			
Working Temp.	-40℃~+85℃ (can customize for high temperature)			
Temp. Resistance of Electrode	-50℃~+150℃			
Storage Temp.	-40℃~+85℃			
Working Current	5-10mA (Exclude 4-20mA)			
Electrical Connection	Fixed cable by stainless steel cap			
IP Rating	IP67			
Cable Length	1000mm or by customized			
Signal Output & Power Supply	4-20mA(2 wires) 12-28VDC	0-5V(3 wires) 12-28VDC	0-10V(3 wires) 12-28VDC	0-3.3V 12-28VDC
	RS485 Modbus 4.5-36VDC	RS232 4.5-36VDC	CAN	
Pressure Connection	M20*1.5, M27*2(According to length of probe) Flange connection by customization			
Long-term Stability (%FS/year)	≤0.1			
Temp Drift (%FS/℃)	≤0.02			
Probe Material	SUS304 (Can customize for 316L)			
Electrode Material	FEP			
Screw Material	SUS304			
Explosion Proof	Exia II CT6 Ga			

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-C[600]D16P2T1S2A2M1C1001

Model No.	PWL-C	PWL-C
Order Length (mm)	50-3000 mm Directly write range in []	[600]
Probe Diameter (mm)	D16=16mm (Typical for 50-1400mm length) D19=19mm D22=22mm D25=25mm (Typical for L>1400mm length)	D16
Working Pressure	P1=Atmospheric pressure P2=Sealed pressure (-0.1MPa~0.1MPa) P3=Other pressure max 3Mpa	P2
Signal Output	T1=4-20mA(2wires) T2=4-20mA(3wires) T3=0-5V(3wires) T4=0-10V(3wires) T5=RS485(4 wires) T6=RS232 T7=CAN T0=Customized	T1
Power Supply	S1=12-28VDC S2=24VDC S3=4.5-36VDC S4=12VDC	S2
Accuracy	A1=±3mm (Typical for $L \leq 300\text{mm}$) A2=1.0%FS (Typical for $300 < L \leq 700\text{mm}$) A3=0.5%FS (Typical for $700 < L \leq 3000\text{mm}$) A4=0.2%FS by customization	A2
Housing Material	M1=SUS304(Typical) M0=Customized	M1
Process Connection	C1=M20x1.5 C2= M27*2 C3=Flange C0=Others	C1
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