Recorder Flow Pressure Temp Analyzer Level

Datasheet

Submersible Liquid Level Transmitter

SUP-P260-M2

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The submersible Level Transmitter is designed for difficult level sensing applications where sludge, slurry, or turbulence may be present. The transmitter provide continuous liquid level measurement by sensing the hydrostatic pressure produced by the height of liquid above the sensor and providing a 4-20 mA output signal compatible with PLC, panel meter, data logger, and other electronic equipment. The transmitter consists of a sensing element, encased in a 316 SS housing with cage and large diameter 316 SS diaphragm seal. The sensor prevents moisture intrusion， and performance well even when the assembly is buried in a layer of sludge or slurry.

Applications

- Wastewater
- Wet Wells
- Oil Tanks
- Sumps
- Reservoirs
- Sludge, Slurry or Turbulence
- Chemical Storage Tanks
- Lift Station Monitoring
- Liquid Level in Vented Tank
- Landfill Leachate Monitoring
- Dewatering
- Pump Control

Features

- Non-clogging and damage resistant to floating solids.
- Durable 316 SS construction for reliable, long life in harsh environments.
- 1/2 inch NPT threaded connection, allows the unit to be installed in a pipe/conduit.
- Diaphragm is protected from physical damage and turbulence.
- Added weight helps hold transmitter in place.
- Excellent chemical compatibility for wide application use.

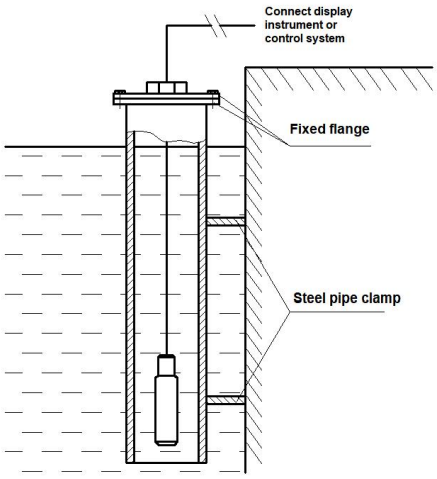
Product name

Submersible Liquid Level Transmitter

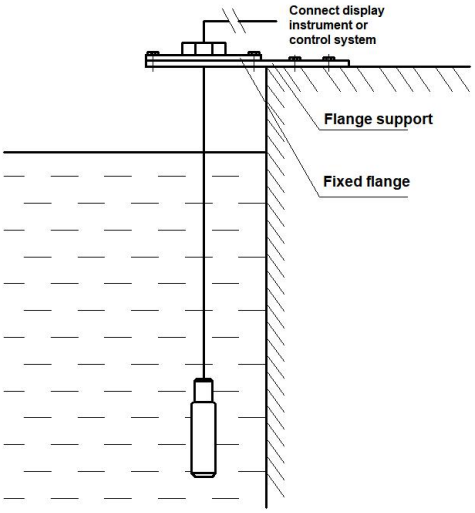
Parameters									
bar	0...0.25	0...0.4	0...0.6	0...1	0...1.6	0...2.5	0...4	0...6	0...10
mH2O	0...2.5	0...4	0...6	0...10	0...16	0...25	0...40	0...60	0...100
psi	0...3.6	0...5.8	0...7.8	0...14.5	0...23.2	0...36.2	0...58	0...87	0...145
The given measuring ranges are also available in mbar, kPa and MPa.									
Measure Range	0m-0.5m-100m								
Overload Pressure	≤200%FS								
Pressure Type	G（surface pressure）								
Accuracy	0.5%								
Stability	±0.2%FS/Year								
Zero Temperature Drift	±0.03%FS/℃								
Sensitivity Drift	±0.03%FS/℃								
Temp Compensation	0℃-50℃，-10℃-60℃								
Medium Temperature	-30℃-65℃								
Power Supply	12VDC-30VDC								
Signal Output	4mA-20mA,0V-5V(Customized)								
Load Resistance	Current type：≤（U-12）/0.02(Ω)								
Ingress Protection	IP68								
Cable Lengths									
Meter (m)	1.5	3	5	10	15	20	25	30	40
Meter (m)	50	60	80	100					
Feet (ft)	5	10	20	30	40	50			
Other cable lengths on request									

Installation

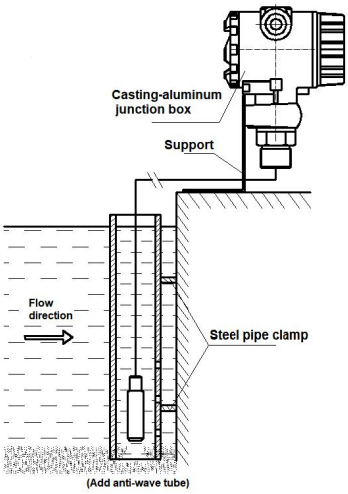
- In the measurement of the reservoir, oil tank and other liquids, in order to prevent the displacement of the transmitter in the long-term measurement, it is recommended to adopt the fixed pipe installation. Fix a steel pipe or plastic pipe with an inner diameter of greater than φ 30mm, and make sure the pipe is connected from top to bottom. Put the transmitter into the pipe at the corresponding depth, and fix the cable and junction box at the outlet of the pipe.



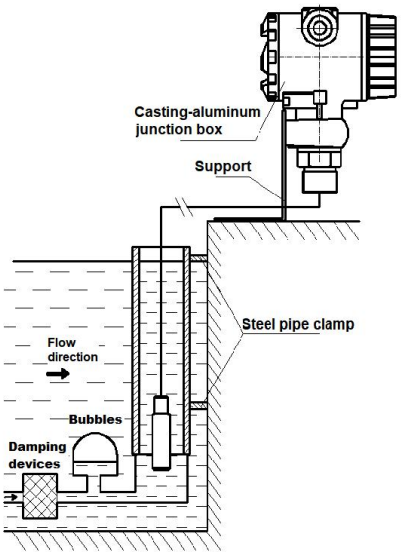
- In the measurement of still liquid, the level transmitter can be directly put into the liquid, and the cable and junction box can be fixed at the outlet.



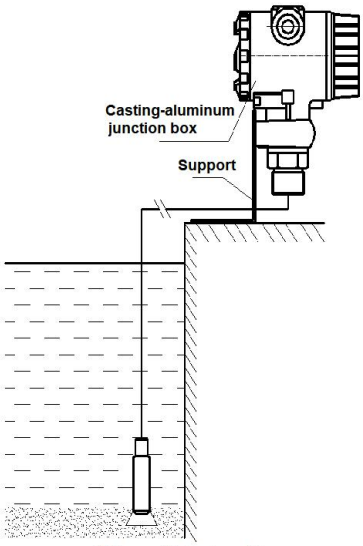
- When measuring the liquid level in the flowing liquid, insert a steel pipe with an inner diameter of about Φ30mm in the liquid, and open two to three holes of about Φ5mm in the high and low positions of the pipe in the reverse direction of the liquid flow to allow the liquid to enter the pipe easily, and the cable and junction box are fixed at the outlet.



- When measuring liquid level in a fluid with large fluctuations, it is recommended to add damping devices as shown in the figure to reduce the impact of fluctuations on liquid level measurement, and to fix the cable and junction box at the outlet.

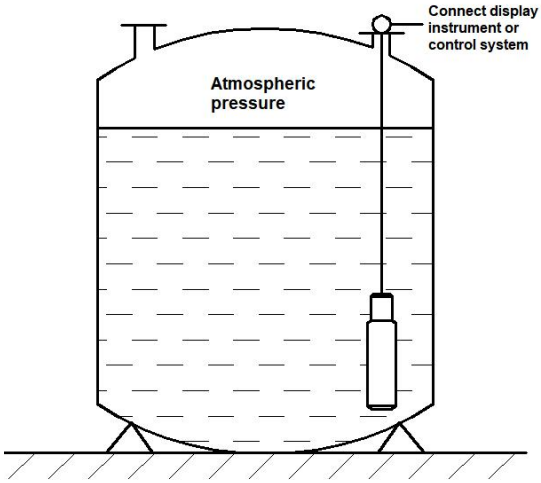


- In the liquid level measurement with large silt, it is necessary to install the mounting bracket to prevent the silt from blocking the pressure hole and causing test errors.



(Add support for the large silt)

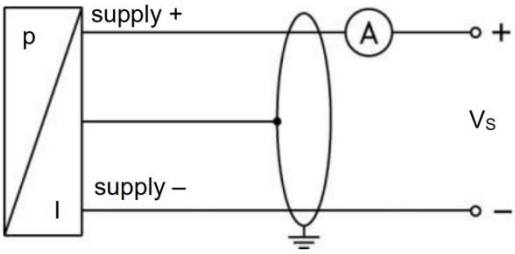
- When measuring the still liquid in an open container, the level transmitter can be directly put into the bottom of the container and the cable and junction box can be fixed at the opening of the container.



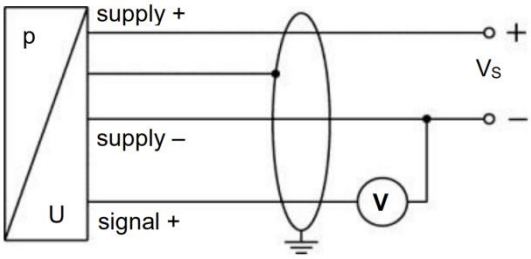
(Open tank)

Wiring

2-wire-system (current)

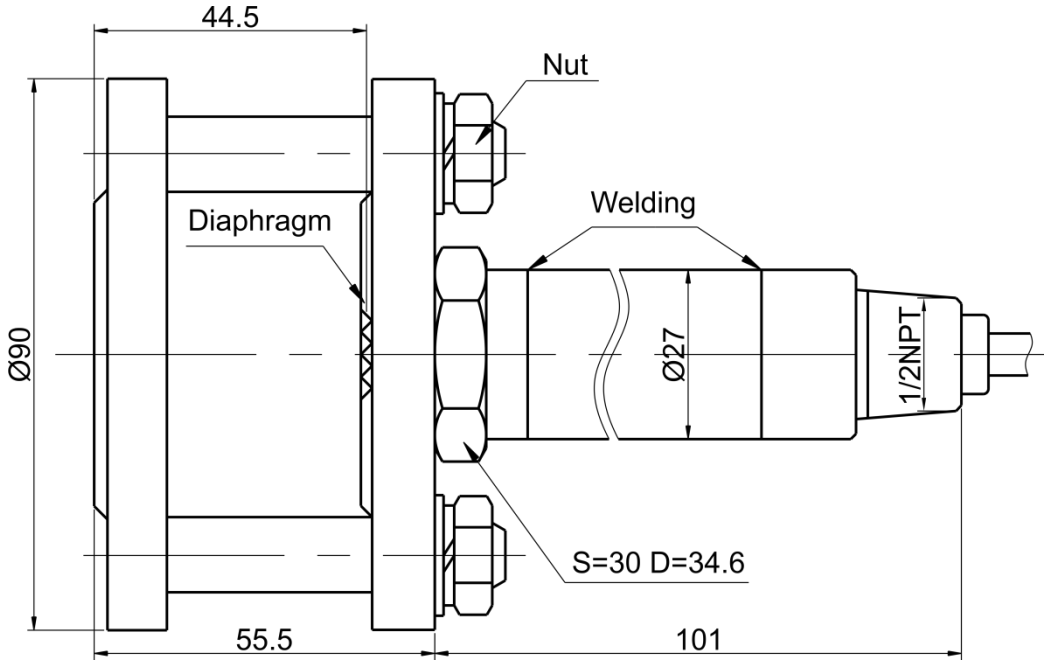


3-wire-system (voltage)



Current Output:	Voltage Output:	RS485 output:
Red: 24V + Green: Current + Black: GND	Red: 24V + Green: 24V - Yellow: Voltage + Black: GND	Red: 24V + Green: 24V - Yellow: 485A Blue: 485B Black: GND

Dimension



Ordering code

SUP-P260-M2-03-K-A1-M3-1-05-N9								Description
SUP-P260-M2	-	-	-	-	-	-	-	
Measurement Range	03							3m(with Counterweight Block)
	05							5m
	07							7m
	10							10m
	20							20m
	50							50m
	1H							100m
	XX							Others
Accuracy		K						Level 0.5
		G						Level 0.25(Only for Measuring Range≥10m)
		X						Others
Output and Power Supply			A1					Two-Wire System 4-20mA
			V1					0-5V，24VDC
			V2					0-10V，24VDC
			R2					RS485，24VDC
			R1					RS485，12VDC
			XX					Others
Diaphragm Material				M3				316LSS
				XX				Others
Probe Material and Level of Protection					1			304SS，IP68
					2			316LSS，IP68
					X			Others
Cable Length (Cable Length≥Measurement Range)						05		5m
						10		10m
						20		20m
						50		50m
						1H		100m
						XX		Others
Cable Sheath Material							N9	Polyvinyl Chloride(PVC)
							N2	Polyurethane(PU)
							XX	Others