Datasheet

Submersible Liquid Level Transmitter

SUP-P260

Supmea®

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Submersible Liquid Level Transmitter
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The submersible liquid level transmitter uses a high-performance diffused silicon piezoresistive pressure sensor as the measuring element, which accurately measures the hydrostatic pressure proportional to the liquid level depth, and converts it into a standard (current, voltage, RS485) through a signal conditioning circuit.) signal output, establishes the linear correspondence between the output signal and the liquid depth, and realizes the measurement of the liquid depth.

Applications

- Rivers and Lakes
- Vessel and Storage Systems
- Control of Sewage Lift and Pumping Stations
- Well Monitoring
- Ground Water Monitoring
- Environmental Remediation
- Surface Water Monitoring
- Down Hole
- Water Tanks

Submersible level transmitter

Features

- High performance diffused silicon piezoresistive sensor
- Probe input measurement method, easy to install
- Multiple protection structure design, high protection ability
- Various designs, suitable for various industrial conditions
- Choose anti-corrosion stainless steel material, suitable for various occasions

Principle

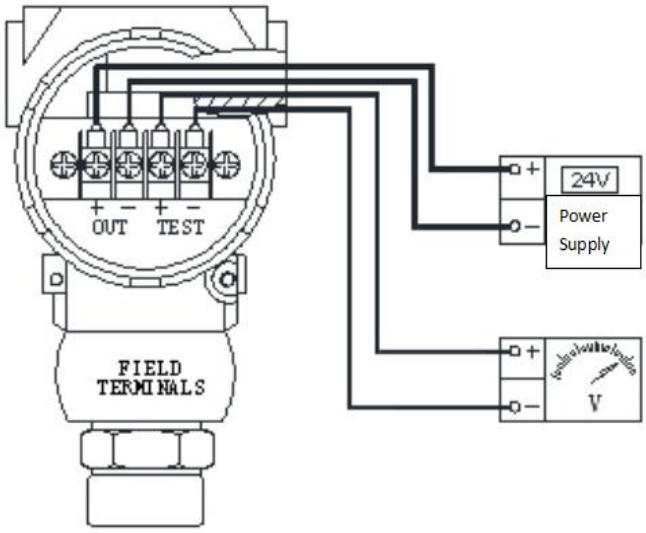
Pressure P(liq) on any surface and container walls at depth h, by the liquid of desnity d,

$P(liq) = d \times g \times h + P(air)$

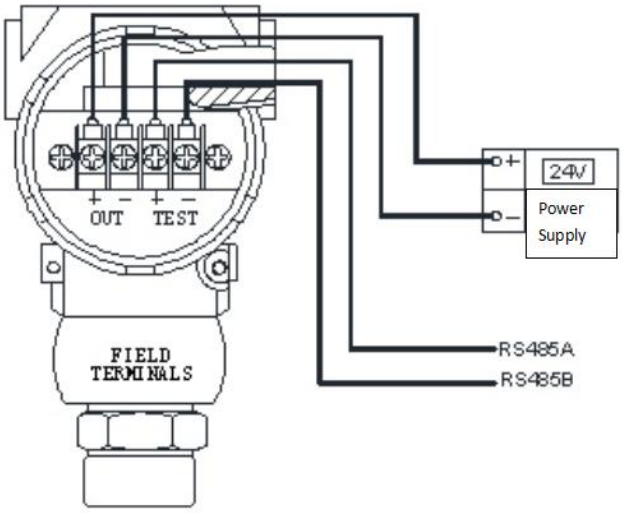
Parameters	
Power supply	（4~20）mA output（10~32）V （0~10）V output（12~32）V RS485 output（8~32）V
Output	（4~20）mA；（1~5）V；（0~10）V；（0~5）V；RS485
Accuracy	0.5%
Measurement Range	0~1m...200m water bar
Pressure Type	Surface pressure
Compensation Temperature	（-10~70）℃
Medium Temperature	（-10~65）℃
Storage Temperature	（-40~85）℃
Zero Output Temperature Drift	±0.3%FS/10℃（（-10~70）℃）
Full-Scale Output Temperature Drift	±0.3%FS/10℃（（-10~70）℃）
Overload Pressure	150%FS
Long-Term Stability	±0.2%FS/year
Response Time	Current and voltage output pressure≤10ms (up to 90%FS); RS485 output pressure≤100ms (up to 90%FS)
Insulation Resistance	20MΩ/250VDC
Ingress Protection	Sensor IP68, 2088 wiring part IP65
Load Resistance	(U-9V)/0.02A, U is the power supply voltage

Wiring

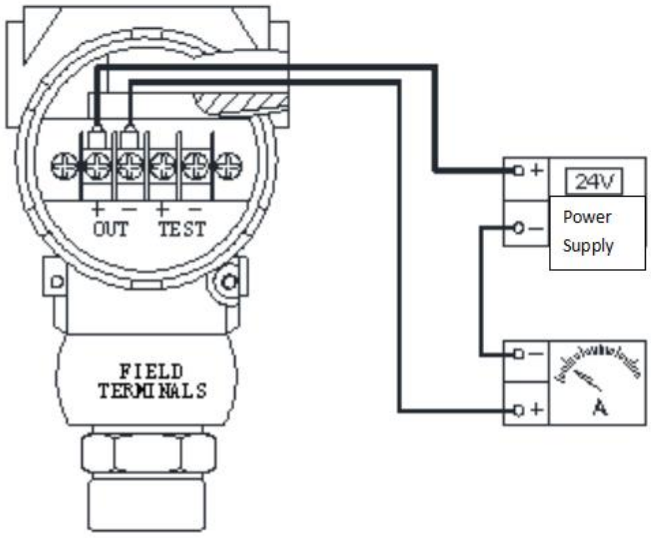
2088 Type Electrical Connection Diagram



2-wire current output



RS485 output

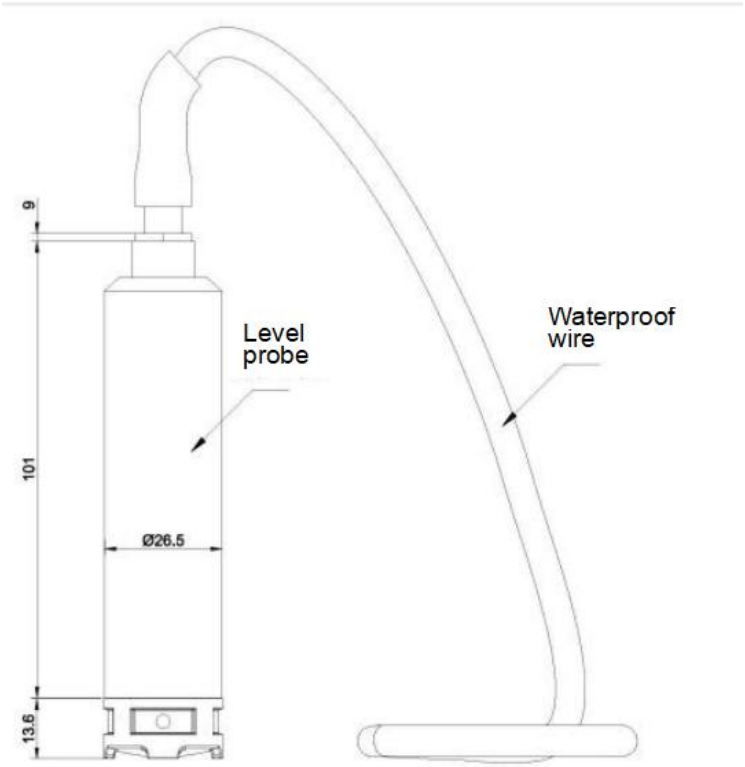


voltage output

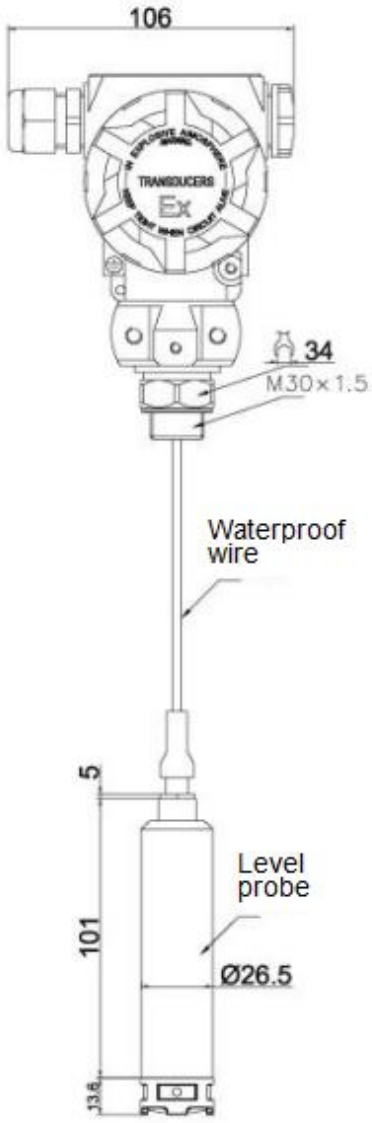
Leaded electrical connection

Output Type	Color	Description
Current	Red wire Blue wire	24VDC current output
Voltage	Red wire Blue wire Yellow wire	24VDC negative power supply voltage output +
RS485	Red wire Black wire Blue wire Yellow wire	24VDC negative power supply 485A 485B

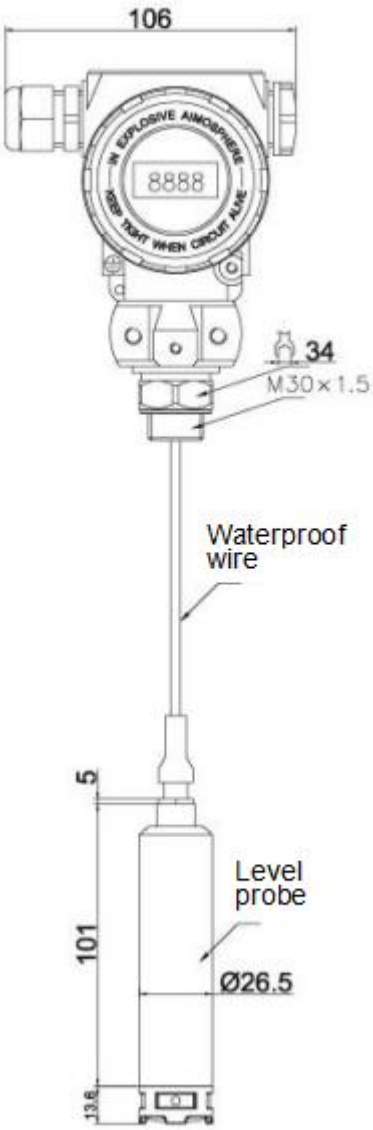
Dimension



Direct Lead Type



2088 type without display



2088 type with display

Ordering code

SUP-P260	-	-	-	-	-	-	-	-	Description
SUP-P260	-	-	-	-	-	-	-	-	
Measurement Range		01							1m
		02							2m
		03							3m
		05							5m
		07							7m
		10							10m
		15							15m
		20							20m
		25							25m
		30							30m
		40							40m
		50							50m
		80							80m
		1H							100m
		XX							Other
Accuracy			K						0.5 Class
			G						0.25 Class(Only range⩾10m)
			X						Others
Output and Power Supply				A1					Two-wire 4-20mA
				V1					0-5V,24VDC
				V2					0-10V,24VDC
				R2					RS485,24VDC
				R1					RS485,12VDC
				XX					Others
Diaphragm Material					M3				SS316L
					XX				Others
Probe Material and Ingress Protection						1			304SS,IP68
						2			SS316L,IP68
						3			Titanium,IP68

Cable Length (Recommended cable length⩾measurement range)	05		5m
	06		6m
	07		7m
	08		8m
	10		10m
	15		15m
	20		20m
	25		25m
	30		30m
	40		40m
	50		50m
	60		60m
	80		80m
	1H		100m
	XX		Others
Cable Sheath Material		N9	Polyvinyl Chloride
		N2	Polyurethane
		XX	Others