Datasheet

Submersible level transmitter

SUP-P260

Supmea®

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Datasheet

Submersible pressure transmitter for level measurement
Model SUP-P260, standard version

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

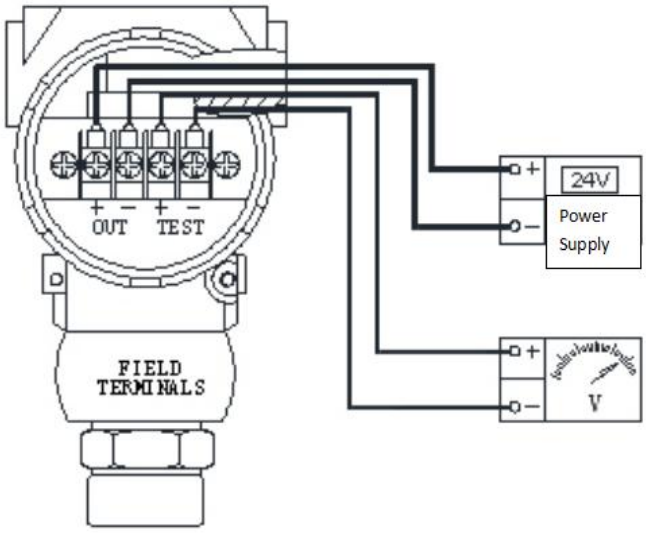
Pressure P(liq) on any surface and container walls at depth h, by the liquid of desnity d,

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

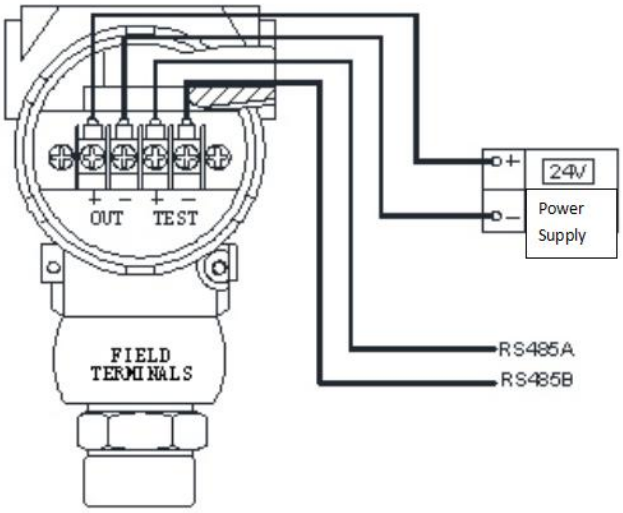
Parameters	
Power supply	（4~20）mA output（10~32）V （0~10）V output（12~32）V RS485 output（8~32）V
Output	（4~20）mA；（1~5）V；（0~10）V；（0~5）V；RS485
Accuracy	0.5%
Measurement range	0~1m...200m water bar
Pressure type	Surface pressure
Compensation temperature	（-10~70）℃
Medium temperature	（-10~65）℃
Storage temperature	（-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

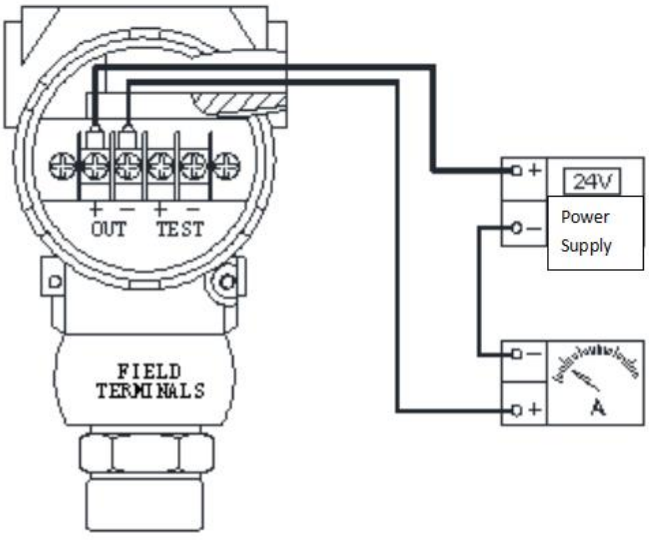
2088 Type Electrical Connection Diagram



2-wire current output



RS485 output

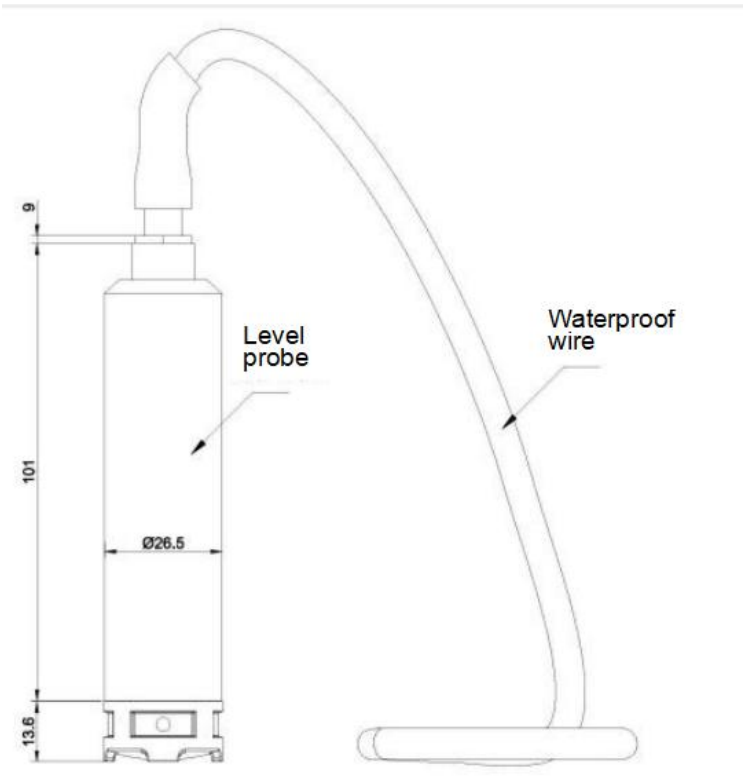


voltage output

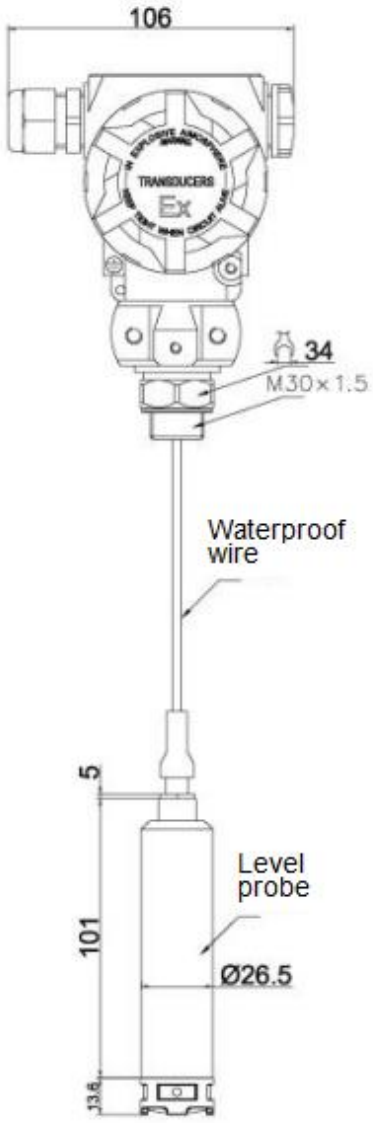
Leaded electrical connection

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

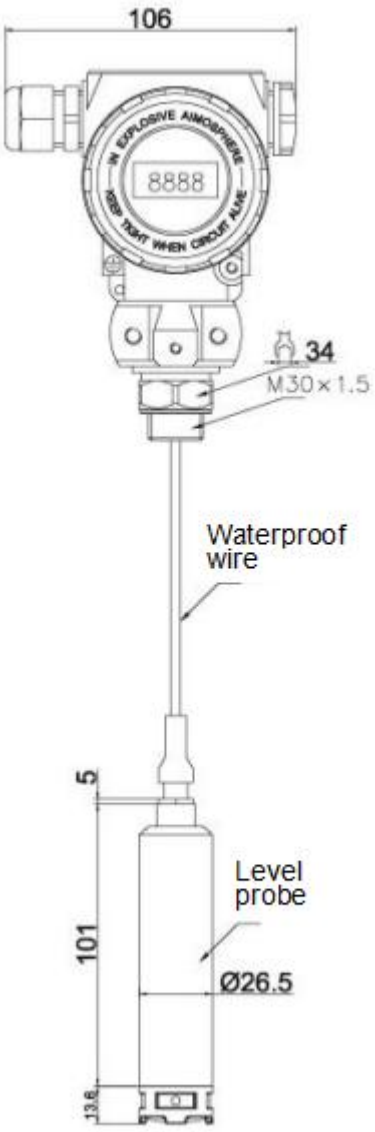
Dimension



direct lead type



2088 type without display



2088 type with display

Ordering code

SUP-P260-01-K-A1-M3-1-05-N9									Description
SUP-P260	-	-	-	-	-	-	-	-	
Measurement Range		01							1m
		02							2m
		03							3m
		05							5m
		07							7m
		10							10m
		20							20m
		50							50m
		1H							100m
		XX							Other
Accuracy			K						0.5 Class
			G						0.25 Class(Only range ⩾10m)
			X						Other
Output and Power Supply				A1					Two-wire 4-20mA
				V1					0-5V,24VDC
				V2					0-10V,24VDC
				R2					RS485,24VDC
				R1					RS485,12VDC
				XX					Other
Diaphragm Material					M3				SS316L
					XX				Other
Probe Material and Ingress Protection						1			304SS,IP68
						2			SS316L,IP68
						3			Titanium,IP68
Cable Length (Recommended cable length ⩾ measurement range)							05		5m
							10		10m
							20		20m
							50		50m
							1H		100m

	XX		Other
Cable Sheath Material	N9		Polyvinyl Chloride
	N2		Polyurethane
	XX		Other