

LiquiLevel **SLT**

Submersible Level transmitter

Submersible Level Transmitter

Committed to process automation solutions

Technical Specification



Submersible pressure transmitter for level measurement Model SLT, standard version

This series submersible level transmitters are manufactured for years of trouble free service in the harshest applications. The transmitters consist of a piezo resistive sensing element, encased in a 316 SS housing.

Compensation for atmospheric pressure changes is accomplished through a vent tube in the cable, Units come equipped with a tensile strength shielded and vented cable. Ventilation tube in the cable automatically compensates for changes in atmospheric pressure above the tank. The vent is protected with a maintenance free filter eliminating particulate or water droplets from entering the transducers, and the cable construction for aggressive media.

Application

- 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

Characteristics

- Wide measuring ranges
- IP68 for permanent submersion
- The cable construction for aggressive media
- 316SS case available for aggressive media
- Analog output signal, RS485
- High precision and excellent long term stability
- Bullet nose protects the diaphragm from damage.
- Ventilation tube to ensure automatically compensates
- Lightning protection available

Principle

Pressure $P(\text{liq})$ on any surface and container walls at depth h , by the liquid of density d ,

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

Measuring range

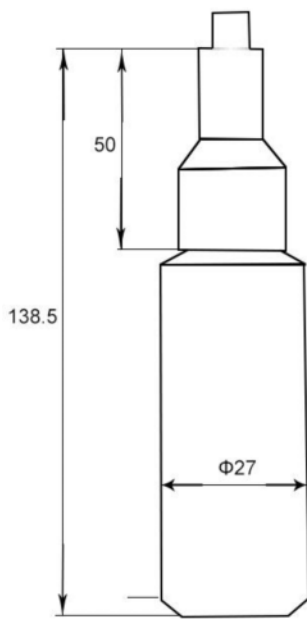
Bar	0 - 0.050 - 50
inWC	0 - 200 - 20000
Psi	0 - 1.00 - 725
mH2O	0 - 0.50 - 500

When choosing the PTFE cable, only measuring ranges up to 0...10 bar,0..150 psi and 0...100 mH2O are available. The given measuring ranges are also available in mbar, kPA and MPa

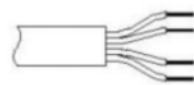
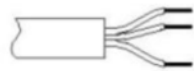
Materials

Watted parts	Standard	Option
Case and sensor	Stainless steel 316	Ceramic Capacitor
Protection cap	Stainless steel 304	316/PTFE/PVC
Cable	PUR	PTFE

Overload	200% F.S.					
Burst pressure	300% F.S.					
Accuracy: (Linearity Hysteresis Repeatability)	$\leq \pm 0.1\%$ F. S $\leq \pm 0.15\%$ F. S $\leq \pm 0.25\%$ F. S $\leq \pm 0.5\%$ F.S (Optional) Including non-lin., rep. and hys.					
Long Stability	$\leq \pm 0.2\%$ of span/year					
Working Temp	-30°C-80°C or-40°C-100°C (Customized)					
Storage Temp	- 40°C~125°C					
Temperature Compensation	Standard:-10°C~60°C or by Customized					
Medium compatible	Compatible with 316L Stainless Steel					
Electronic Wire	2 Wires / 3 Wires / 4 Wires					
Output	4-20mA	1-5V 0-5V	0-10V	0.5-4.5V	0-100 mV/V	Rs485 Modbus RTU
Power Supply	12-30VDC (7-30Vdc optional)		15-30V dc	5Vdct 5%	10Vdc	10~30 Vdc (2.7-5.5 Vdc optional)
Polarity protection	yes	yes	yes	yes	yes	yes
Insulate resistance	>100MQ@100V					
Zero Temp. Drift	0.03% FS/PC(≤ 100 kPa);0.02% FS/C(>100kPa)					
FS Temp. Drift	0.003% FS/C(s100kPa)					
Electronic connection	Fixed cable and water proof IP68					
Response time	s4 to 10 ms (standard) ; s1 ms (Customized)					
Pressure Type	Gage pressure; Sealed gage and absolute optional.					
Lighting Protection	Air conduction more than 8000V; external sensor more than 4000 Voltage protection.					
Cable optional	Cable materials are optional according request,we offer 3 type special cable as follow: PE Cable(Water Proof);PUR Cable(Oil Proof);PTFE Cable(Anti-Corrosive)					
Weight	Net weight is about 0.35KG,Full Packing weight is about 1.0KG (Not include cable)					



Dimension



Directly sealed cable

Current	Red	Vcc+
	Green	S+ (0Vcc)
	Black	Shield Wire
Voltage	Red	Vcc+
	Green	Vcc-&S-(GND)
	Yellow	S+
RS485 RTU Modbus	Black	Shield Wire
	Red	Vcc+
	Green	Vcc-&S-(GND)
	Yellow	RS485A
	Black	RS485B

Wiring

Ordering code: LL-SLT - R(XX-XX) - J1 - O1 - D1 - V1 - AT1 - CS5-P1

Model							LL-SLT
Measuring range	R(XX - XX)						0-0.5...-60m
Accuracy	J1						0.5% F.S
	J2						0.25% F.S
	J3						0.1% F.S
	J4						0.15% F.S
Analog output		O0					No analog output
		O1					4 - 20mA output
		O2					1 - 5V output
		O3					0 - 5V output
		OZ					Others
Communication output		D0					No communication output
		D1					RS485
Power supply			V1				24VDC
			V2				12VDC
Spare part				AT0			No
				AT1			Filter
Cable length					CS5		5m (Standard)
					CSXX		XX m (Custom length)
Pressure type						P1	Gauge pressure
						P2	Absolute pressure