

# ESL044/45 High-corrosiveness Resistant Liquid Level Transmitter

- ✓ **Pressure type:** Gauge Pressure
- ✓ High-corrosiveness resistant liquid level transmitter
- ✓ **SS316 Stainless Steel Housing**
- ✓ **Titanium Alloy + PTFE (Teflon) Composite Housing**
- ✓ **Range:** 0~0.5...50m waterpout (Customize small range)
- ✓ **Accuracy:**  $\pm 0.25\%F.S$ ,  $\pm 0.5\%F.S$ ,  $\pm 1.0\%F.S$
- ✓ **Stability:** 0.25%F.S/Year(typical), 0.5%F.S/Year(maximum)
- ✓ **Customized working temperature:** -20°C~120°C
- ✓ **Output:** 4~20mA, 0/1~5V, 0~10V
- ✓ **Supply:** 10/11~30V, 6~24V
- ✓ **Ingress Protection:** IP68
- ✓ OEM: Available



## Applications

High-corrosiveness resistant liquid level measurements | Corrosive mediums | Chemistry experiments | High-temperature Site | Flammable mediums | Explosion-proof site

## Product Introduction

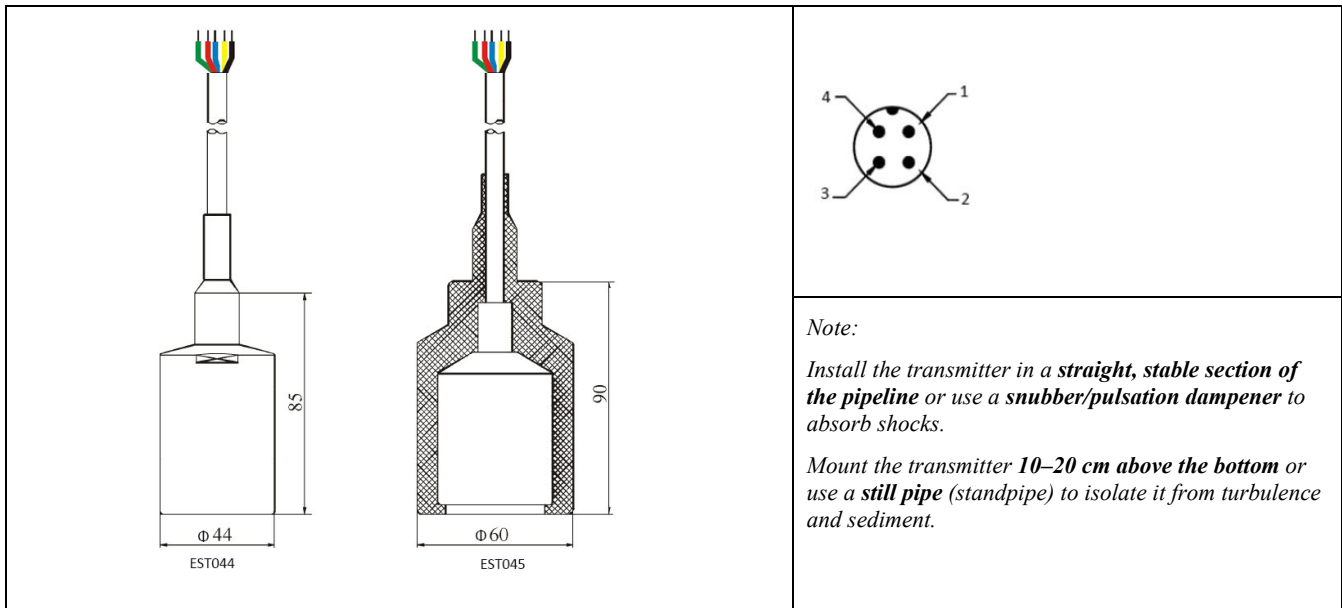
ESL044/45 line is liquid level transmitter of high accuracy, reliability and stability. With the sensing element of ceramics, the product is used for the measurements of corrosive liquid and gas. This product line features the housing of titanium alloy and Teflon, ceramics sensing element of international brands, and the specially designed V/I converting amplifier circuit. It is easy to perform zero/span trim. Based on the locations, different high-strength breathable cables featuring wear-proof, acid/alkali resistance and oil resistance can be configured. non-polarized two-wire output and DC-AC three-wire output.

## Electrical Connections and Dimensional drawings

Electrical connection			
Cable	Two wire	Three wire	GX16-7
Red	Power	Power Supply	1
Blue/Green	Output	Output	2
Black	Shield	GND	3
Yellow		Shield	4
Signal output			
Two wire	4~20Ma		
Three wire	0/1~5V, 0~10V		

**Two wire 4~20mA**

**Three wire 0/1~5V, 0~10V**



*Note:*  
 Install the transmitter in a **straight, stable section of the pipeline** or use a **snubber/pulsation dampener** to absorb shocks.  
 Mount the transmitter **10–20 cm above the bottom** or use a **still pipe (standpipe)** to isolate it from turbulence and sediment.

Sensor-based Classification	
ESL044	Ceramic capacitive sensor with SS316 housing for weak causticity medium and <1m H2O measurement.
ESL045	Ceramic capacitive sensor with titanium alloy & Teflon housing for strong causticity medium and >1m H2O
Note	
1.	To measure the level of dynamic liquid, mount the transmitter to the location free from pressure shock.
2.	To measure the level of turbid liquid, keep the transmitter away from the bottom of the vessel

## Specifications

Measuring Range	0~0.5...50mwaterpout	Insulation	>100MΩ@50V
Overload pressure	1.5 times of rated pressure	Electric Strength	500V@60second
Burst Pressure	3 times of rated pressure	Lightening protection	Withstand Voltage in Air: 8000V, Withstand Voltage of Housing and Cable: 4000V
Accuracy:	±0.25%F.S ; ±0.5%F.S; ±1.0%F.S	Response time:	10ms
Stability	0.25%F.S/Y, 0.5%F.S/Ymax	Pressure type	GP (G)
Working temperature	-20~80℃, (-20~120℃ Customize)	Vibration/Shock	10g/5~2000Hz, axes X/Y/Z20g sine 11ms
Compensation temperature	-10~70℃, (Customizable for full temperature range)	Safety Level	Intrinsically Safe E; Explosion-proof D;
Medium compatibility	All corrosive mediums compatible with ceramics and PTFE	Electromagnetic compatibility	Electromagnetic radiation: EN50081-1/-2; Electromagnetic Sensitivity: EN50082-2
Electrical parameters	Two wire	Three wire	
Output Signal	4~20mA	0~5Vdc	1~5Vdc
Power supply	10~30Vdc	6~24Vdc/ac	
Load resistance	(U-10)/0.02(Ω)	>100kΩ	
Electrical Connections	Waterproof wire jacket + Rectangular seals + O-rings + Sealant + Glues pouring (Ingress Protection IP68)		
Pressure connection	Immersed		
1mH2O≈9.81KPa			

## Ordering Procedure

EST	High-corrosiveness resistant liquid level transmitter								
	Code	Model							
	044	SS316 housing for weak causticity							
	045	Titanium Alloy & Teflon housing for strong causticity							
	Code	Span							
	0	0~0.5...1m							
	1	0~0.5...50m							
	Code	Output Type							
	A	4~20mA							
	V	0~5Vdc							
	V1	1~5Vdc							
	V2	0~10Vdc							
	Code	Precision							
	0.25	±0.25%F.S							
	0.5	±0.5%F.S							
	1.0	±1.0%F.S							
	Code	Power Supply							
	DC24	24 Vdc							
	DC11	11~30 Vdc							
	Code	Working Temperature							
	A	-20~80°C (-10~70°C compensation)							
	H	-20~120°C							
	Code	Pressure connections							
	I	Immersed							
	S	Split							
	Code	Cable length XXm=... m							
	Code	Packing							
	Bb	Bubble bag							
	Foa	Plastics foam							
ESL	044	1	A	0.25	DC24	A	I	1.5m	Bb