

# LTA Level Transducer

- Submersible Level Transducer
- Municipal, Industrial and Environmental

The **LTA Level Transducer** is a submersible hydrostatic level transducer specifically designed to meet the rigorous environments encountered in liquid level measurements and control.

Standard Certifications:



Optional Certifications:



## FEATURES

### Standard

- 0.25% Accuracy
- 316 Stainless Steel Body
- One Year Warranty
- Pre-calibrated Pressure Ranges

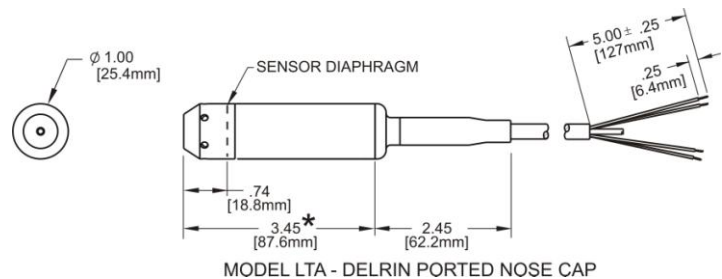
### Optional

- 0.10% Accuracy
- Titanium Body
- Two Year Warranty
- Custom Pressure Ranges
- Intrinsically Safe
- Lightning Protection

## APPLICATIONS

- Lift Station Monitoring
- Pump Control
- Tank Liquid Level
- Landfill Leachate Monitoring
- Construction Bypass Pumping
- Dewatering

## dimensions



## standard pressure ranges for 0.25% accuracy

Pressure Range (PSI)	Feet H <sub>2</sub> O	Vented	Sealed	Absolute
0-001	2.3 ft	X	N/A	N/A
0-003	6.9 ft	X	N/A	N/A
0-005	11.5 ft	X	X	N/A
0-010	23.1 ft	X	X	N/A
0-015	34.6 ft	X	X	X
0-030	69.2 ft	X	X	X
0-050	115.4 ft	X	X	X
0-100	230.7 ft	X	X	X
0-300	692.2 ft	X	X	X
Custom Ranges also available				

## STATIC PERFORMANCE

Static Accuracy (combined effects of non-linearity, hysteresis and repeatability, best fit straight line method)	Standard - 0.25% FSO Optional - 0.10% FSO	BFSL method For absolute/sealed reference min. range 0-15 PSI
Resolution	+0.0001% FS	

## ENVIRONMENTAL

Wetted Materials	316 SS or Titanium; POM; polyurethane or FKM	
Compensated Temp Range	0 to 50°C	
Thermal Error (maximum allowable deviation from the Best Fit Straight Line due to a change in temperature)	±0.1% FSO/°C	
Operating Temp Range	-20 to 60 °C	when attached to polyurethane cable
Protection Rating	IP 68, NEMA 6P	

## ELECTRICAL

Excitation	9-28V – mA output	4-20
	9-28V – VDC output	0-5V, 0-2.5V, 0-4V
	15-28V – VDC output	0-10V
	10-28V – VDC output	1.5-7.5V
Input Current	20 mA max	for mA output
	3.5 mA max	for VDC output
Output	Standard - 4-20mA	
	Optional - 0-4 VDC, 0-5 VDC, 0-2.5 VDC, 0-10 VDC, 1.5-7.5 VDC	for ranges < 5 ft (1.5m) H <sub>2</sub> O, only 4-20mA output is available
Zero Offset	±0.25 mA for mA output	
	< 0.25 VDC for VDC output	
Output Impedance	See loop diagram for mA output	
	20 ohm for VDC output	
Insulation Resistance	100 mega ohm at 50 VDC	
Circuit Protection	Polarity, surge/shorted output	

## CERTIFICATIONS

Standard - WEEE/RoHS, CE compliant	EN 61326-1:2001 and 61326-2-3:2006 Waste from Electrical and Electronic Equipment (WEEE) and Restrictions on the use of Hazardous Substances (RoHS)
Optional - UL, CUL and FM	Class I, II, III, Div 1, Groups A,B,C,D,E,F&G

## PHYSICAL

Approximate Weight	0.44 lbs (198 g) transducer	
	0.05 lbs/ft (79 g/m) cable	
Cable Jacket Material	Standard - Polyurethane Optional - ETFE	
Cable Pull Strength	200 lbs (90 kg)	
Cable Number of Conductors	4	
Cable Conductor Size	22 AWG	
Cable Seal	Molded Polyurethane	for polyurethane cable
	FKM Gland	for ETFE cable

## LIGHTNING PROTECTION (power supply needs to be limited to 150mA to avoid lock up of the gas tube after a suppression event)

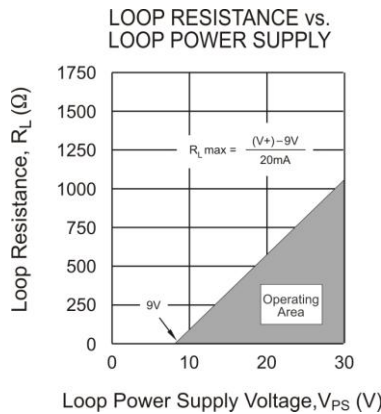
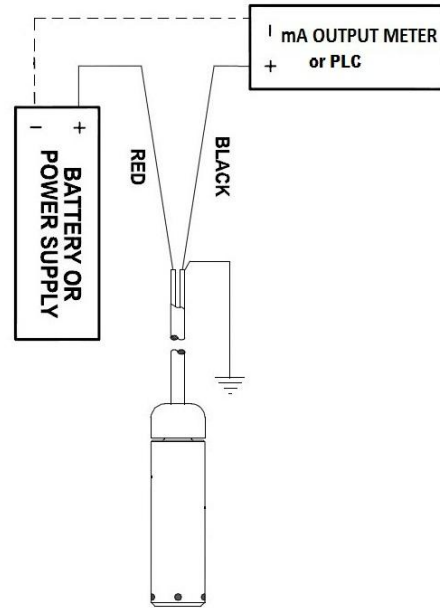
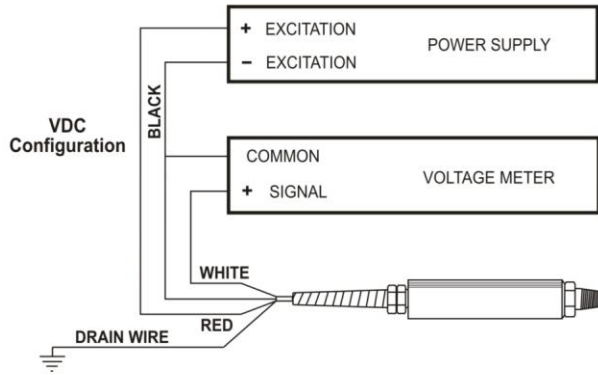
Life Expectancy	>1,000 Operations
Peak Clamping Voltage	36 Volts
Response Time	<10 nsecs
Shunts	20,000 Amperes

TRANSDUCER											
L	T	Submersible Level Transducer									
↓	↓	<b>PRESSURE PORT</b>									
	A	Nose cap									
	↓	<b>OUTPUT</b>									
	8	4 – 20mA									
	1	0 – 2.5 VDC									
	2	0 – 4 VDC									
	3	0 – 5 VDC									
	4	0 – 10 VDC									
	5	1.5 – 7.5 VDC									
	G	4-20 mA w/Lightning Protection									
	A	0-2.5 VDC w/Lightning Protection									
	B	0-4 VDC w/Lightning Protection									
	C	0-5 VDC w/Lightning Protection									
	D	0-10 VDC w/Lightning Protection									
	E	1.5-7.5 VDC w/Lightning Protection									
	↓	<b>CABLE TYPE</b>									
	A	Polyurethane									
	B	ETFE									
	D	None									
	↓	<b>ACCURACY</b>									
	B	±0.25% FSO									
	R	±0.25% FSO with Cal Report									
	A	±0.10% FSO									
	S	±0.10% FSO with Cal Report									
	↓	<b>INTRINSIC SAFETY APPROVALS</b>									
	D	None									
	B	UL, FM & CUL									
	↓	<b>WARRANTY<sup>1</sup></b>									
	A	Standard one year Warranty									
	B	Custom Label one year Warranty									
	J	Extended two year Warranty									
	K	Custom Label two year Warranty									
	↓	<b>MATERIAL</b>									
	S	Stainless Steel									
	T	Titanium									
	↓	<b>ELECTRICAL CONNECTION</b>									
	A	Overmold									
	B	Gland Seal (ETFE jacketed cable)									
	D	Overmold w/ ½" – 14 NPT Conduit									
	F	Gland Seal w/ ½" – 14 NPT Conduit									
	↓	<b>PRESSURE RANGE</b>									
	x	x	x	Refer to chart page 1							
	↓	↓	↓	<b>UNITS</b>							
				P	PSI						
				↓	<b>PRESSURE REFERENCE</b>						
				A	Absolute						
				G	Vented Gage						
				S	Sealed Gage						
				↓	<b>CABLE LENGTH (FT)</b>						
				x	x	x	Cable length in feet				
				↓	↓	↓					
L	T	A								P	

<sup>1</sup> Contact Measurement Specialties if private labeling is required.

# LTA Level Transducer

## electrical termination/loop resistance



ELECTRICAL TERMINATION		
22AWG CONDUCTORS IN A SHIELDED CABLE WITH VENT TUBE		
4-20 mA	RED BLACK	+ EXCITATION - EXCITATION
0-5 VDC	RED BLACK WHITE	+ EXCITATION - EXCITATION + SIGNAL
ALL	DRAIN WIRE	SHIELD

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