

LTB Level Transducer

- Submersible Level Transducer
- Municipal and Industrial Applications
- Wide Mouth Non-fouling Protective Cage
- 2.75" PTFE Flexible Diaphragm

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

Standard Certifications:



Optional Certifications:



FEATURES

Standard

- 0.25% FSO Accuracy
- Welded 316 Stainless Steel Enclosure
- One Year Warranty
- Pre-calibrated Pressure Ranges

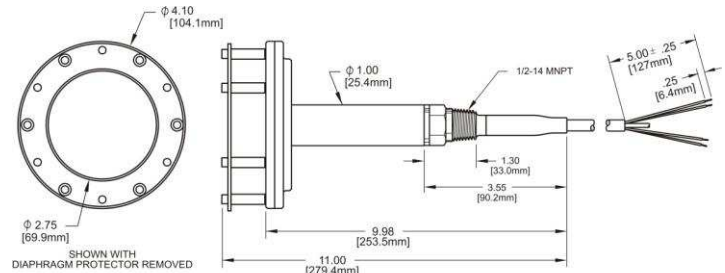
Optional

- Two Year Warranty
- Custom Pressure Ranges
- Intrinsically Safe
- Lightning Protection

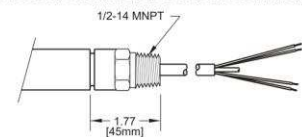
APPLICATIONS

- Lift Station Monitoring
- Pump Control
- Slurry Tank Liquid Level
- Wastewater

dimensions



MODEL LTB - CAGE NOSE W/OVERMOLDED CONDUIT CONNECTION



MODEL LTB - GLAND SEAL CONDUIT CONNECTION

standard pressure ranges

Pressure Range (PSI)	Feet H ₂ O	LTB Vented
0-005	11.5 ft	X
0-010	23.1 ft	X
0-015	34.6 ft	X
0-030	69.2 ft	X
0-050	115.4 ft	X
Custom Ranges Available		

specifications

STATIC PERFORMANCE

Static Accuracy (combined effects of non-linearity, hysteresis and repeatability, best fit straight line method)	±0.25% FSO	BFSL method
Resolution	+0.0001% FS	

ENVIRONMENTAL

Wetted Materials	316 SS; 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)	±0.10% FSO/°C	Worst case for level ranges <23' (7m) H ₂ O Prorated for level ranges ≤ 23' (7m) H ₂ O
Operating Temp Range	-20 to 60 °C	when attached to polyurethane cable
Protection Rating	IP 68, NEMA 6P	

ELECTRICAL

Excitation	9-28V – VDC output	0-5V, 0-2.5V, 0-4V
	9-28V – mA output	4-20
	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	4-20mA, 0-5 VDC, 0-2.5VDC,	for ranges < 5 ft (1.5m) H ₂ O, only 4-20mA output is available
	0-4VDC, 0-10VDC, 1.5-7.5VDC	
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
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PHYSICAL

Approximate Weight	3.5 lbs (1588 g) transducer 0.05 lbs/ft (79 g/m) cable	
Cable Jacket Material	Polyurethane (standard) ETFE (optional)	
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

TEMPERATURE OUTPUT OPTION (not intrinsically safety approved)

Temperature Range	-20 to 60°C	available for 4-20mA output versions only
Output Signal	4-20mA	

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	

LTB Level Transducer

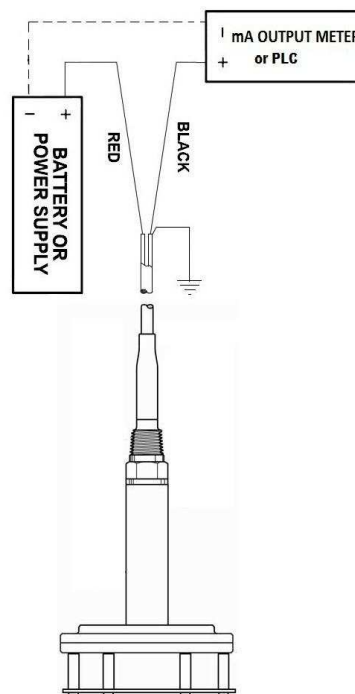
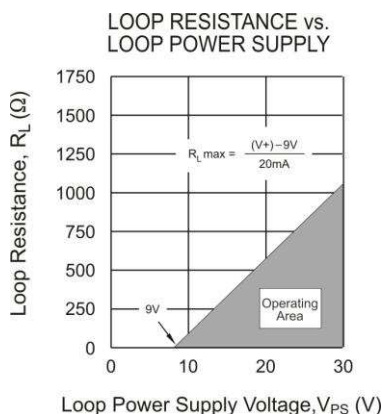
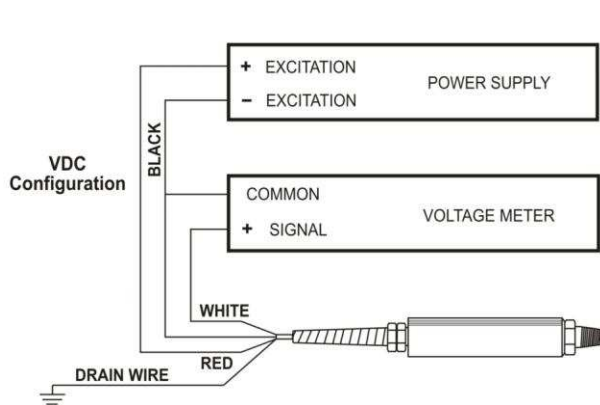
ordering info

TRANSDUCER																	
L	T	Submersible Level Transducer															
↓	↓	PRESSURE PORT															
		B	Cage														
		↓	OUTPUT														
			8	4 – 20 mA													
			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													
			A	0-2.5 VDC w/Lightning													
			B	0-4 VDC w/Lightning													
			C	0-5 VDC w/Lightning													
			D	0-10 VDC w/Lightning													
			E	1.5-7.5 VDC w/Lightning													
		↓	CABLE TYPE														
			A	Polyurethane													
			B	ETFE													
			D	None													
		↓	ACCURACY														
			B	±0.25% FS													
			R	±0.25% FS with Cal Report													
		↓	INTRINSIC SAFETY APPROVALS														
			B	UL, FM & CUL													
			D	None													
		↓	WARRANTY¹														
			A	Standard one year Warranty													
			B	Custom Label one year Warranty													
			J	Extended two year Warranty													
			K	Custom Label Extended two year Warranty													
		↓	MATERIAL														
			S	Stainless Steel													
		↓	ELECTRICAL CONNECTION														
			A	Overmold													
			B	Gland Seal (ETFE jacketed cable)													
			D	Overmold w/ 1/2" – 14 NPT Conduit													
			F	Gland Seal w/ 1/2" – 14 NPT Conduit													
		↓	PRESSURE RANGE														
			x	x	x	Refer to chart page 1											
			↓	↓	↓												
			UNITS														
			P	PSI													
		↓	PRESSURE REFERENCE														
			G	Vented Gage													
		↓	CABLE LENGTH (FT)														
			x	x	x	Cable length in feet											
			↓	↓	↓												
L	T	B				B				S			P	G			

¹ Contact Measurement Specialties if private labeling is required.

LTB 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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