



MEAS LTB LEVEL TRANSDUCERS

- ◆ 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.

Applications

- ◆ Lift Station Monitoring
- ◆ Pump Control
- ◆ Slurry Tank Liquid Level
- ◆ Wastewater
- ◆ Lightning Protection

Features

Standard

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

Optional

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

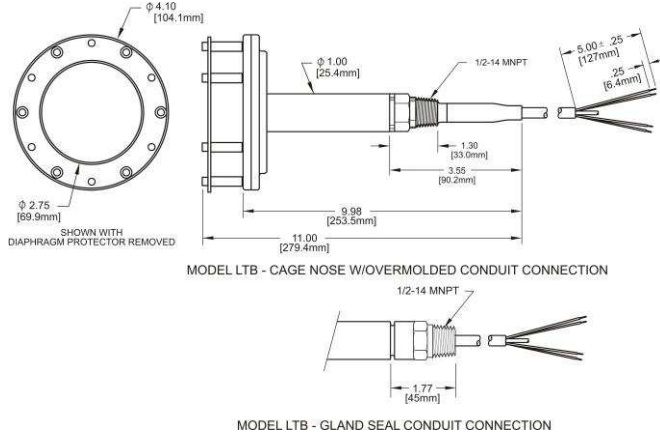
Specifications

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; PTFE; FKM; Polyurethane or ETFE	
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 9-28V – mA output 15-28V – VDC output 10-28V – VDC output	0-5V, 0-2.5V, 0-4V 4-20 0-10V 1.5-7.5V
Input Current	20 mA max 3.5 mA max	For mA output For VDC output
Output	4-20mA, 0-5 VDC, 0-2.5VDC, 0-4VDC, 0-10VDC, 1.5-7.5VDC	For ranges < 5 ft (1.5m) H ₂ 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 61326-1:2013 and 61326-2-3:2013 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	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 FKM Gland	For polyurethane cable 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	

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Peak Clamping Voltage	36 Volts
Response Time	<10 nsecs
Shunts	20,000 Amperes

Dimensions



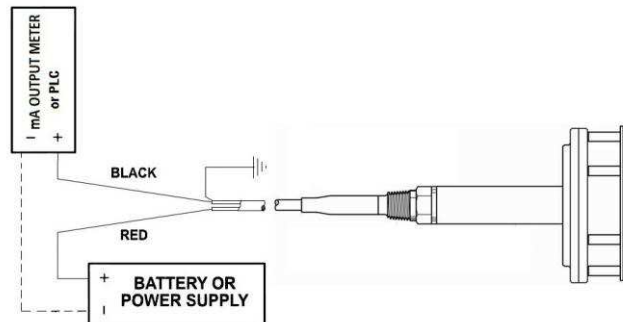
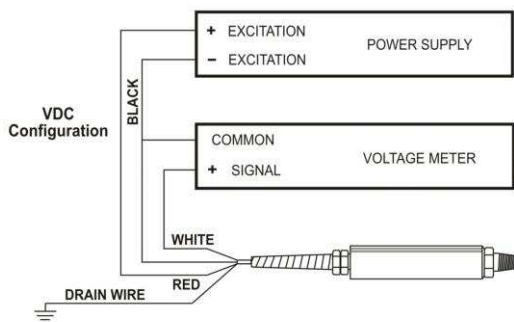
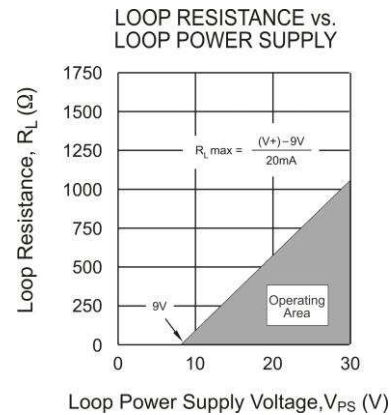
STANDARD PRESSURE RANGES

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 (whole number) Ranges Available		

Electrical Termination/Loop Resistance

ELECTRICAL TERMINATION

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



MEAS LTB LEVEL TRANSDUCER

Ordering Information

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										
			↓	ACCURACY											
				B	±0.25% FS										
				R	±0.25% FS with Cal Report										
			↓	INTRINSIC SAFETY APPROVALS											
				B	UL, FM & CUL (Cable Type A or B Only)										
				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 (Cable Type A Only)										
				B	Gland Seal										
				D	Overmold w/ 1/2" – 14 NPT Conduit (Cable Type A Only)										
				F	Gland Seal w/ 1/2" – 14 NPT Conduit										
			↓	PRESSURE RANGE											
				x	x	x	Refer to chart page 1								
			↓	↓	↓	↓	LABEL UNITS								
				P	PSI										
				M	M H ₂ O										
				F	Ft. H ₂ O										
			↓	PRESSURE REFERENCE											
				G	Vented Gage										
			↓	CABLE LENGTH (FT)											
				x	x	x	Cable length in feet								
			↓	↓	↓	↓									
L	T	B					S				G				

¹Contact Measurement Specialties if private labeling is required.