

# LTR Level Transducer

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

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

## 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

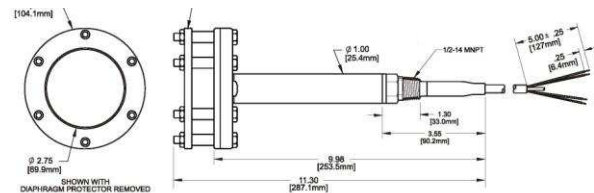
Standard Certifications:



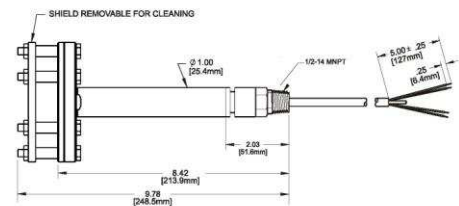
Optional Certifications:



## dimensions



MODEL LT (THICK PLATE) - CAGE NOSE W/OVERMOLD CONDUIT CONNECTION



MODEL LT (THICK PLATE) - CAGE NOSE W/GLAND SEAL CONDUIT CONNECTION

## standard pressure ranges

Pressure Range (PSI)	Feet H <sub>2</sub> O
0-005	11.5 ft
0-010	23.1 ft
0-015	34.6 ft
0-030	69.2 ft
0-050	115.4 ft
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 <sub>2</sub> O Prorated for level ranges ≤ 23' (7m) H <sub>2</sub> 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 <sub>2</sub> 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	

# LTR Level Transducer

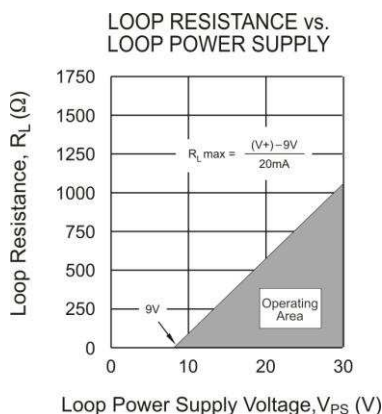
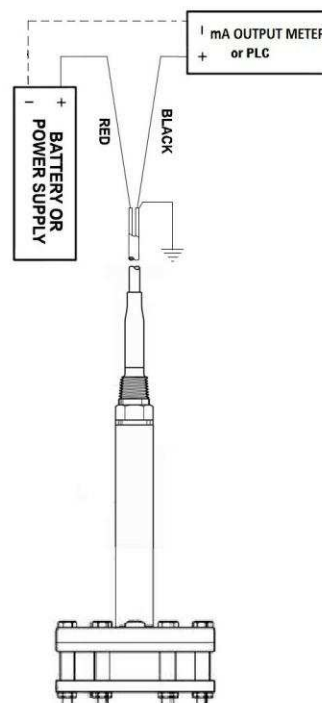
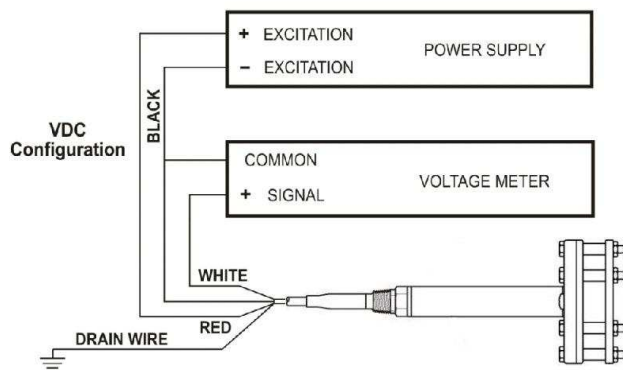
## ordering info

<b>TRANSDUCER</b>																		
L	T	Submersible Level Transducer																
↓	↓	<b>PRESSURE PORT</b>																
		R	Heavy-duty Cage															
		↓	<b>OUTPUT</b>															
			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														
		↓	<b>CABLE TYPE</b>															
			A	Polyurethane														
			B	ETFE														
			D	None														
		↓	<b>ACCURACY</b>															
			B	±0.25% FS														
		↓	<b>INTRINSIC SAFETY APPROVALS</b>															
			B	UL, FM & CUL														
			D	None														
		↓	<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 Extended two year Warranty														
		↓	<b>MATERIAL</b>															
			S	Stainless Steel														
		↓	<b>ELECTRICAL CONNECTION</b>															
			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														
		↓	<b>PRESSURE RANGE</b>															
			x	x	x	Refer to chart page 1												
			↓	↓	↓													
			<b>UNITS</b>															
			P	PSI														
		↓	<b>PRESSURE REFERENCE</b>															
			G	Vented Gage														
		↓	<b>CABLE LENGTH (FT)</b>															
			x	x	x	Cable length in feet												
			↓	↓	↓													
L	T	R				B				S				P	G			

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

# LTR 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

### NORTH AMERICA

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