

# LT Series Pressure Transducer

- Non-Submersible Pressure Transducer
- Municipal, Industrial and Environmental Applications

**LT 5 & 7 Pressure Transducers** are non-submersible hydrostatic pressure transducers specifically designed for demanding industrial applications where the primary criteria are reliability and economy.



## FEATURES

### Standard

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



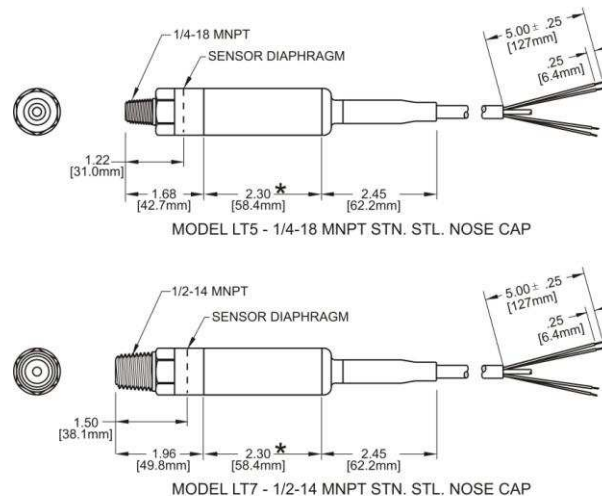
## dimensions

### Optional

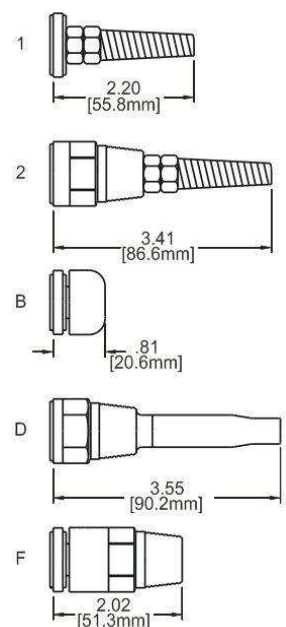
- 0.10% FSO Accuracy
- Titanium Body
- Two Year Warranty
- Custom Pressure Ranges
- Lightning Protection

## APPLICATIONS

- Non-Submersible Tank Level
- Liquid Line Pressure
- Pump Control
- Construction Bypass Pumping
- Dewatering



### ELECTRICAL CONNECTION OPTIONS



# LT Series Pressure Transducer

## specifications

### 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	Only for Electrical Connection options "A" & "D" with Cable Type option "A"; or Electrical Connection options "B" & "F" with Cable Type option "B"

### 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	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)
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### PHYSICAL

Approximate Weight	0.44 lbs (198 g) transducer	
	0.05 lbs/ft (79 g/m) cable	
Cable Jacket Material	PVC Jacket	
	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

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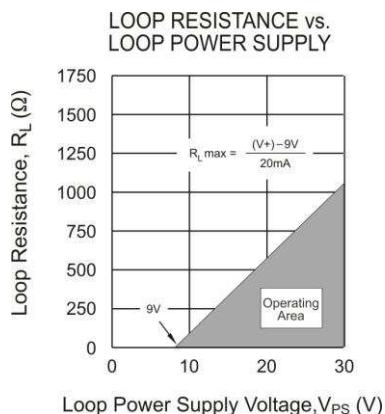
## ordering info

TRANSDUCER											
L	T	Submersible Level Transducer									
↓	↓	PRESSURE PORT									
		5	1/4" – 18 Male NPT Fitting								
		7	1/2" – 14 Male NPT Fitting								
		↓	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								
		C	PVC jacket								
		D	None								
		↓	ACCURACY								
		B	±0.25% FSO								
		R	±0.25% FSO with Cal Report								
		A	±0.10% FSO								
		S	±0.10% FSO with Cal Report								
		↓	INTRINSIC SAFETY APPROVALS								
		D	None								
		↓	WARRANTY <sup>1</sup>								
		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								
		T	Titanium								
		↓	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								
		1	Strain-relieved cable with flying leads - standard								
		2	1/2" - 14 NPT male conduit								
		↓	PRESSURE RANGE								
			x	x	x	Refer to chart page 4					
			↓	↓	↓						
						UNITS					
						P	PSI				
						↓	PRESSURE REFERENCE				
						A	Absolute				
						G	Vented Gage				
						S	Sealed Gage				
						↓	CABLE LENGTH (FT)				
			x	x	x	Cable length in feet					
			↓	↓	↓						
L	T					D				P	

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

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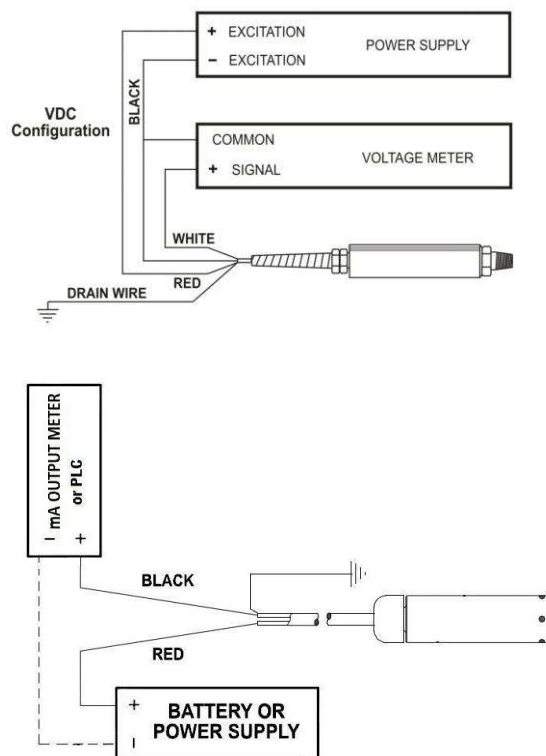
## electrical termination/loop resistance



### 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



### standard pressure ranges for 0.25% accuracy

Pressure Range	LT 5, 7 Vented	LT 5, 7 Sealed	LT 5,7 Absolute
001	X	N/A	N/A
003	X	N/A	N/A
005	X	X	N/A
015	X	X	X
030	X	X	X
050	X	X	X
100	X	X	X
300	X	X	X
500	X	X	X
700	X	X	X
900	X	X	X

NOTE: Overmold option is limited to a maximum of 300 PSI. Minimum range for +/- 0.10% with sealed/absolute reference is 0-15 PSI

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