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LM

LIQUID LEVEL SENSOR

The LM series liquid level sensor incorporates stainless steel and plastic isolation suitable for level sensing in water and other liquids. The LM uses a patented low-cost stainless-steel sensor in a PVC plastic fitting to measure liquid level based on the specific gravity of the liquid and the height of the tank or container. The modular design is adaptable to an infinite number of plastic port variations for OEM applications. With high performance in a small form factor, the LM Series enables the miniaturization of high accuracy pressure systems. The standard output is 0.5-4.5V ratiometric with a 5V supply.

- 316L SS Pressure Sensor with PVC Threads
- Small Profile
- 4.5V (typ) High Level Output
- Gage, Absolute, Sealed Gage
- ASIC Calibrated
- Variety of Cable Lengths

Applications

- Irrigation
- RV and Marine Holding Tank Level
- Water Storage & Recycling Systems
- Small Tank Fluid Level
- Chillers & Evaporative Coolers

Features

- Threaded Process Fitting
- -20ºC to +70ºC Operating Temperature
- ±1% Accuracy
- ±3.0% Total Error Band
- Solid State Reliability
- Variety of Cable Lengths

LM SERIES LIQUID LEVEL SENSOR

STANDARD RANGES

Range (psi)	Range (Bar)	Gage	Absolute	Sealed Gage
0 to 1	0 to .07	•		
0 to 2	0 to .20	•		
0 to 5	0 to .35	•	•	•
0 to 15	0 to 1	•	•	•
0 to 30	0 to 2	•	•	•
0 to 50	0 to 5	•	•	•
0 to 100	0 to 7	•	•	•
0 to 150	0 to 10	•	•	•

Note: Intermediate pressure ranges available.

PERFORMANCE SPECIFICATIONS

Supply Voltage: 5.0Vdc

Ambient Temperature: 25°C (unless otherwise specified)

PARAMETERS	MIN	TYP	MAX	UNITS	NOTES
Zero Pressure Output		0.5		V	1, 2
Full Scale Output		4.5		V	1
Accuracy (combined linearity, hysteresis, & repeatability)	-1		+1	%Span	3
Total Error Band (includes calibration errors above & temperature effects over the compensated range)	-3		+3	%Span	
Supply Voltage	4.75	5.00	5.25	V	
Insulation Resistance (50Vdc)	50			MΩ	4
Pressure Overload			3X	Rated	5
Pressure Burst			4X	Rated	6
Compensated Temperature	0		40	ºC	
Operating Temperature	-20		+70	ºC	
Tightening Torque (recommended)	1~2 Turns from Finger Tight				7
Zero Offset Effect @ 1psiG from 90° Changes due to Installation Orientation		0.6		%Span	8
Media, Pressure Port	Liquids and Gases compatible with PVC, 316/316L ST STL, Buna-N O-Ring				

Notes

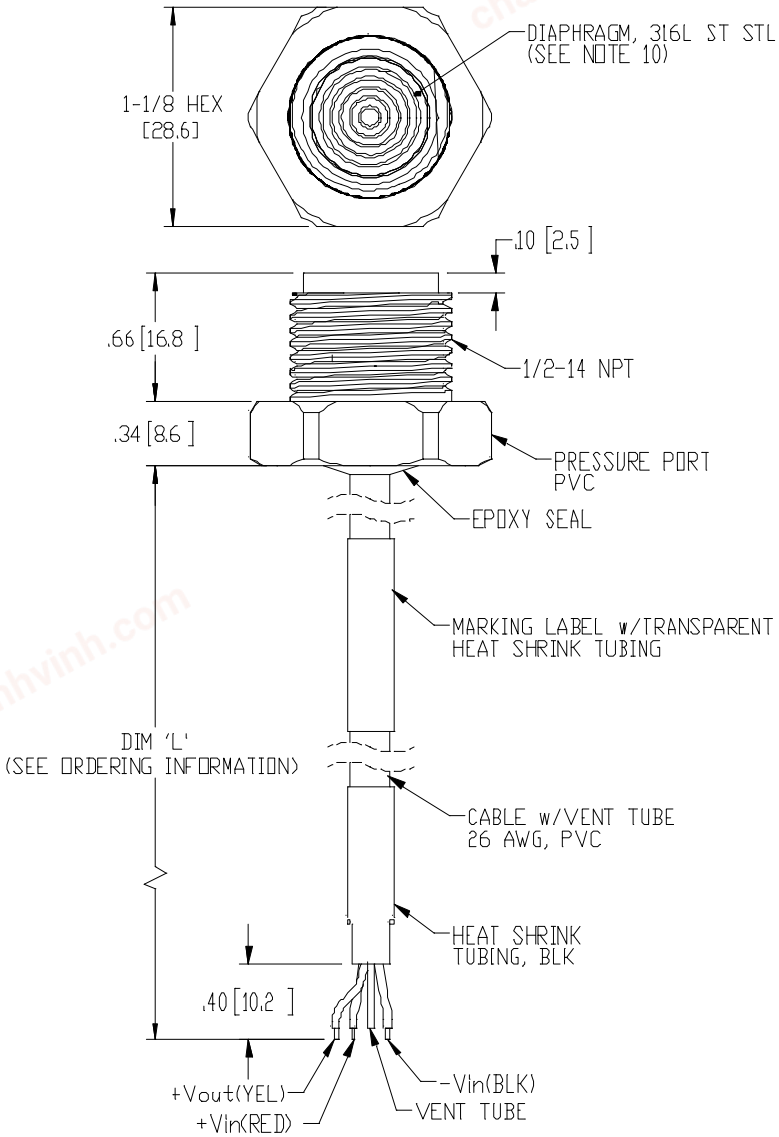
1. Ratiometric to supply voltage.
2. Measured at vacuum for Absolute (A), ambient for Gage (G) and Sealed Gage (S).
3. Best fit straight line.
4. Minimum from any wire to metal diaphragm.
5. The maximum pressure that can be applied without changing the transducer's performance or accuracy
6. The maximum pressure that can be applied to a transducer without rupture of either the sensing element or transducer.
7. Over-torquing will damage the PVC fitting and will cause sensor calibration and/or zero offset to shift during installation. Always check for a zero-offset shift after installing.
8. Zero offset effect is inversely ratiometric to pressure range, for 2psiG: 0.3% Span (typ); for 5psiG: 0.12% Span (typ).

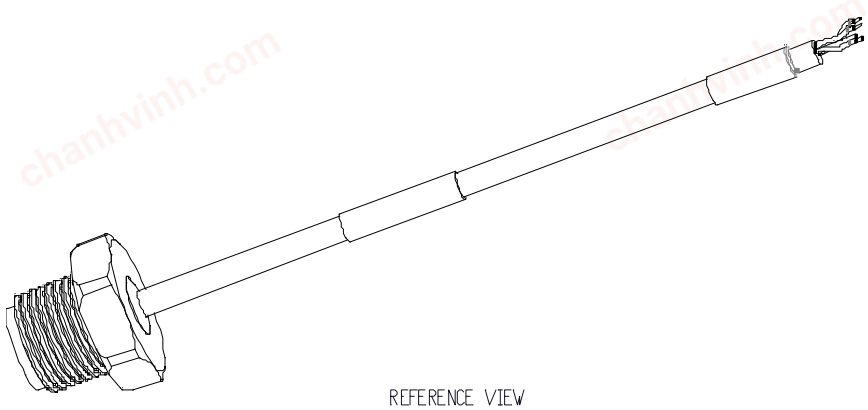
Additional Notes

9. Standard gage units are not recommended for vacuum applications.
10. Direct mechanical contact with diaphragm is prohibited. Diaphragm surface must remain free of defects (scratches, punctures, dents, fingerprints, etc.) for device to operate properly. Caution is advised when handling parts with exposed diaphragms. Use protective cap whenever devices are not in use.

DIMENSIONS

ALL DIMENSIONS IN INCHES[MM]





REFERENCE VIEW

LM SERIES LIQUID LEVEL SENSOR

ORDERING INFORMATION

LM	3	1	-	00000	F	-	100P		G
Model	**Output Signal**	**Connection Type**	**-**	**00000**	**Pressure Port**	**-**	**Pressure Range**		**Pressure Type**
LM	**3*** = 0.5 – 4.5V Ratiometric **X** = Special	**Dim 'L' Cable Inches [mm]** **1** = 12 ± 0.25 [305 ± 6.4] **2** = 24 ± 0.5 [610 ± 12.7] **3** = 48 ± 1.0 [1219 ± 25.4] **4** = 84 ± 1.5 [2134 ± 38.1] **5** = 120 ± 1.5 [3048 ± 38.1] **6** = 180 ± 2.0 [4572 ± 50.8] **7** = 360 ± 2.0 [9144 ± 50.8]	-	**00000**	**F** = 1/2-14 NPT **X** = Special	-	**001P**** **002P**** **005P** **015P** **030P** **050P** **100P** **150P**	**.07B**** **.20B**** **.35B** **001B** **002B** **005B** **007B** **010B**	**G** = Gage **A** = Absolute **S** = Sealed Gage

*Note: Ratiometric output span changes with input voltage. (See supply voltage specification)

**Note: 1psi (.07Bar) and 2psi (.20Bar) only available in Gage (G). (See standard rages)

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