

# **Level Sensor**

## MLPLR and MLPLCABLE-FT

## **Created for Wastewater pump stations**

Specifically designed for extended service in sewage lift station environments, the Level Pressure Sensor for wastewater lift station features a wide sensing diaphragm yet small overall size. Unlike similar, competing models which feature a fragile Teflon®-coated rubber diaphragm, the Level Pressure Sensor incorporates a monolithic diaphragm formed from Kynar®, which combines the non-stick quality of Teflon with superior toughness and abrasion resistance.

Perfectly suited for pump control applications, the Level Pressure Sensor is compatible with any standard 2-wire, 4...20 mA current loop or 3-wire voltage systems.

Maid Labs Technologies's guaranteed lightning protection makes this transmitter ideal for installation in areas prone to chronic damage due to transients caused by lightning.

### **FEATURES**

- 4...20mA models include guaranteed lightning protection at no additional cost.
- 16-bit internal digital error correction for cost-effective low Total Error Band (TEB)3.
- 316L SS housing construction.
- Non-fouling Kynar® diaphragm for superior resistance to puncture.
- 2-year warranty covers defects in materials and workmanship.
- User-rangeable analog output ensures compatibility as requirements change.
- RS485 modified-MODBUS compatible interface allows up to 128 transmitters on a single bus.
- Standard dual (analog & RS485) outputs simplify interface to controls, data collection, and telemetry systems.
- Built in the U.S.A. ARRA Section 1605 Compliant.

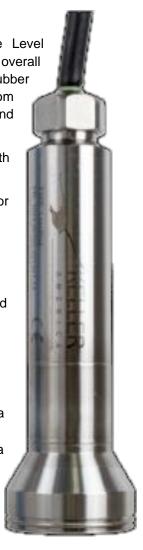
Output	White	Black	Red	Yellow	Blue	
2-wire (mA)	OUT / GND	+Vcc	N/A	N/A	N/A	
3-wire (VDC)	GND	+Vcc	+OUT	N/A	N/A	
4-wire (mA)	OUT / GND	+Vcc	N/A	Comm	Comm	
Braided shield wire connected to transmitter housing						

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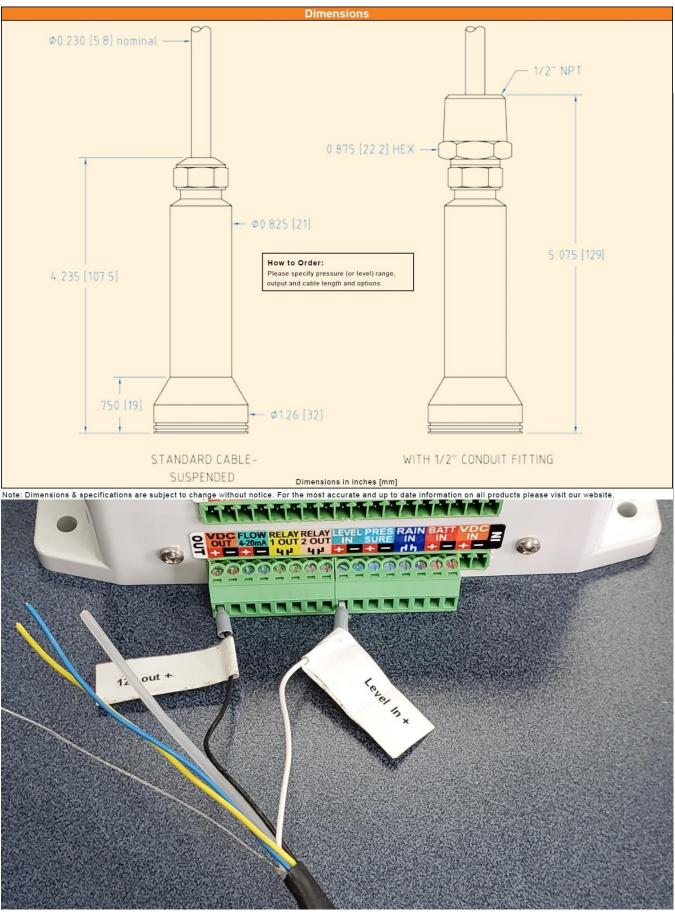


### PARAMETERS

Parameter	Value	Comment	
Pressure Ranges - Relatives	Infinite between 05 thru 0100 ft W.C	Can be provided with custom calibration at no extra cost. For fluids other than water, the specific gravity must be given at the time the order is placed. Level range may be specified in units of PSI, inches WC or feet WC. Maid Labs uses the International Standard conversion of 2.3067 feet WC/psi.	
Accuracy - Static Accuracy - Total Error Band	Standard ±0.2% FS Standard ±0.5% FS	Static accuracy includes the combined effects of non- linearity, hysteresis, and non-repeatability at room temperature (25°C). Total Error Band (TEB) includes static accuracy, plus thermal dependencies, over the compensated temperature range.	
Output - Current Output - Voltage Output - Resolution	420mA + RS485 05, 010VDC + RS485 0.002%	4. Level range may be specified in units of PSI, inches WC or feet WC. Maid Labs uses the International Standard conversion of 2.3067 feet WC/psi.	
Certifications - CE	EN50081-1, EN50082-2		
Electrical – Supply (4-20mA) Electrical – Supply (0-5VDC) Electrical – Supply (0-10VDC) Electrical – Load Resistance (mA) Electrical - Load Resistance (VDC)	1128 VDC 828 VDC 1328 VDC <(Supply-11V)/0.022A >4k ohm	Nominal values may be higher depending upon cable length. Internal lightning protection increases the minimum-required supply voltage from 8VDC to 11VDC, due to internal resistance of the surge protectors. In addition, cable resistance ( $\sim$ 70 $\Omega$ / 1000ft) adds to the supply requirement. In order to insure proper system operation, calculate the minimum required supply voltage (at the source) as follows:	
		For two-part (internal+external) system (recommended): MINIMUM SUPPLY VOLTAGE = 11.6 + 0.022 (CABLE LENGTH x 0.07) VDC	
		For internal only protector (standard with 4-20mA output): MINIMUM SUPPLY VOLTAGE = 11 + 0.022 (CABLE LENGTH x 0.07) VDC	
Environmental – Protection Rating Environmental – Operating Temp. Environmental – Compensated Temp. Environmental – Wetted Materials	IP68 -1060° C 050° C 316 L Stainless Steel Kynar® Polyamide		
Environmental - Cable Options	Fluorocarbon Polyethylene for general purpose Hytrel for hydrocarbon Tefzel for chemical interaction	Part number MLPLCABLE-FT required. It represents one foot of cable	
Dimensions (Cylindrical)	Ø 32 mm x 111 mm Ø 1.26 in x 4.37 in	DxH	







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