## Ameritrol, Inc.

Manufacturer of Industrial Instrumentation

### **ELECTRONIC LEVEL SWITCHES**

#### **Features**

- No Moving Parts
- 316L Stainless Steel Sensor
- Top, Side, or Bottom Mounting
- Simple Calibration and Setup
- Lowest Cost, Designed for Industrial OEM and End Users



#### **Applications**

- High or Low Level Switch
- Liquid to Liquid Interfaces
- Detects Solids in Liquids
- Highly Viscous Products
- Differentiates Foam From Air or Liquids

#### **LM Series**

The LM series is designed to provide an extremely reliable level switch at a very cost effective price. This series replaces the standard explosion proof enclosure utilized in our LX series with a general purpose enclosure.

The principle of operation measures a temperature differential between a heated and a reference temperature sensor (see figure 1). The differential varies as the type of product surrounding the sensor changes. This allows the level switch to detect a greater number of different products than any other technology that is currently available. The different product types are shown on the next page of this brochure in the sensor output chart. The field adjustable set-point can be adjusted to detect any two products shown.

The electronics feature a SPDT relay switch output with options for power input of 120 VAC, 24 VDC or VAC, or 240 VAC. Calibration is easily performed by adjusting a potentiometer on the circuit board.

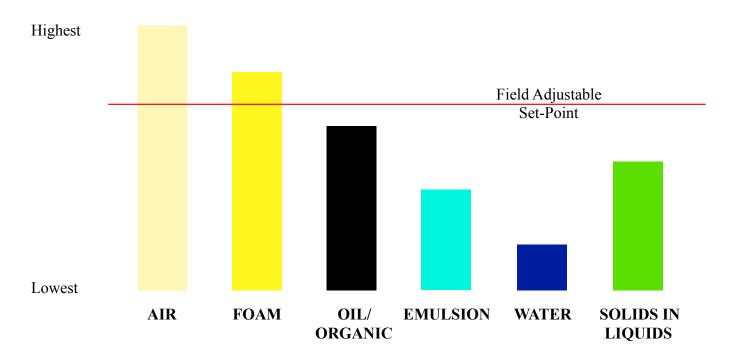


Temperature Differential = Temperature Sensor #1 Minus Temperature Sensor #2

### Part Number/Order Entry Specification

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	L M -						] -			Probe Length
Process	3/4" MNPT	0	7	5	0			0	1	1.2" PROBE
Connection	1" MNPT	1	0	0	0			0	2	1.8" PROBE
Power Input	12 VDC (10.8-18VDC)					В				SPECIAL PROBE LENGTH, SPECIFY LENGTH IN INCHES
	117 VAC (90-135 VAC)				С					
	24 VDC or VAC (+/- 10%)					D				
						Е				

# **Sensor Output (Temperature Differential) Based on Product Type**



### **Specifications**

**Sensor Head** Material of

Construction: 316L Stainless Steel Standard

Operating

Temperature: -50 to 250F (-46 to 121C)

Operating

Pressure: Vacuum to 4000 PSIG (275 Bar)

Response Time: From 3 Seconds
Repeatability +/- 1/8" at Sense Point

**Process** 

Connection: 3/4" MNPT, 1" MNPT

Probe Length: 1.8", 1.2"; Option Customer Specified

**Electronics** 

Housing: Powder Coated General Purpose

Temperature: -50 to 150F (-46 to 65C)

Power Input: 90-135 VAC, 50/60 Hz, 4 Watts

Option 24 VDC/VAC, 200-240VAC

Relay Output: SPDT 2 Amps Resistive

Electrical

Connection: 1" FNPT

Shipping

Weight: 4 lbs

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