

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
- NEMA 4X Enclosure



LD Series

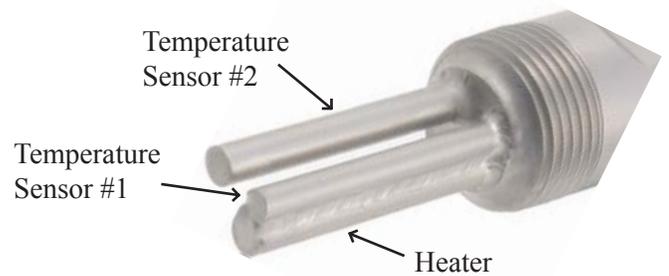
Applications

- Universal High or Low Level Switch
- Liquid to Liquid Interfaces
- Detects Solids in Liquids
- Highly Viscous Products
- Foam/Liquid Interface
- Agitation Monitoring

The LD 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 NEMA 4X 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 currently available technology. The different product types are shown on the back 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 power input of 24 VDC. Calibration is easily performed by adjusting a potentiometer on the circuit board.



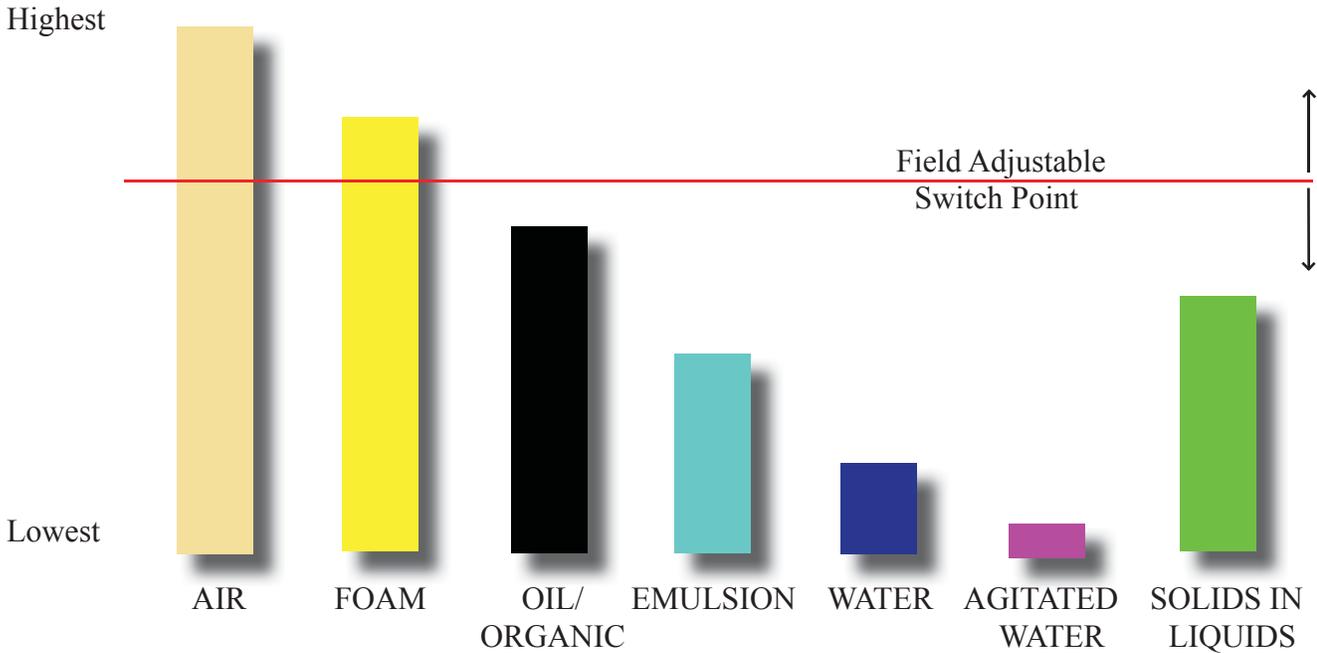
$$\text{Temperature Differential} = \text{Temperature Sensor \#1} \text{ Minus Temperature Sensor \#2}$$

Figure 1

Part Number/Order Entry Specification

	L	D	-	0	7	5	0	D	-			Probe Length
Process Connection	3/4" MNPT			0	7	5	0			0	1	1.2" PROBE
										0	2	1.8" PROBE
Power Input	24 VDC (±5%)							D				SPECIAL PROBE LENGTH, SPECIFY LENGTH IN INCHES

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 $\pm 1/8"$ at Sense Point

Process Connection: $3/4"$ MNPT

Probe Length: 1.8", 1.2" Option Customer Specified

Electronics

Housing: Powder Coated NEMA 4X

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

Power Input: 24 VDC $\pm 5\%$

Relay Output: SPDT 2 Amps Resistive at 24 VDC or 0.5 Amps at 120 VAC

Electrical Connection: $3/4"$ FNPT

Shipping Weight: 2 lbs

Ameritrol, Inc.

1185L Park Center Drive
Vista CA 92081
760-727-7273 Phone
760-727-7151 Fax

1-800-910-6689
Visit our website at
www.ameritrol.com