

# EchoSwitch™

TM

EchoSwitch LU71 0508 D2\_2

## Multi-Point Ultrasonic Level Switch

### Description

The general purpose ultrasonic switch provides non-contact level detection up to 8m with 3 relays. Each relay can be configured on a single set point alarm, two latched set points for automatic fill or empty including lead-lag, or two independent set points for out of bounds alarms. In addition, Relays 1 and 2 can be interlocked for either a relay alternation or duplex operation. The switch is well suited for a broad range of corrosive, waste and slurry type media, and is broadly selected for atmospheric day tank, pump lift station and waste sump applications.

### Features

- ✓ EasyCal target push button calibration with non-volatile memory
- ✓ Incredible 7.6 cm beam diameter for applications with restricted space
- ✓ Amazing 5 cm dead band optimizes filling capacity of small vessels
- ✓ Fail-safe intelligence with diagnostic feedback for easy troubleshooting
- ✓ PC/ABS enclosure rated NEMA 4X with rugged Kynar transducer



Faceplate Shown

LU71-5\_5 Shown

### Specifications

Range:	LU75: 2" to 4' (5 cm to 1.2m) LU72: 4" to 9.8' (10 cm to 3m) LU71: 4" to 16.4' (10 cm to 5m) LU73: 8" to 26.2' (20 cm to 8m)
Repeatability:	0.25" (6 mm)
Adjustability:	Over entire range
Hysteresis:	LU72/5: 0.5" (1.2 cm) (single set point) LU71/3: 1" (2.5 cm) (single set point)
Beam width:	LU72/5: 2" (5 cm) dia. LU71/3: 3" (7.6 cm) dia.
Dead band:	LU75: 2" (5 cm) LU71/2: 4" (10 cm) LU73: 8" (20 cm)
LED indication:	Power, relay and echo status
Calibration:	Target, push button
Memory:	Non-volatile
Supply voltage:	50_5: 95-250 VAC 58_5: 12-28 VDC
Consumption:	50_5: 20 watts max. 58_5: 100 mA @ 24 VDC
Contact type:	(3) SPDT relays

Contact rating:	60 VA
Contact logic:	Single point: alarm Two point: latching or out of bounds alarms
Relay interlock:	Relays 1 & 2 only; alternation or duplexing
Contact fail-safety:	De-energizes during echo signal loss
Process temp.:	F: -4° to 140° C: -20° to 60°
Temp. comp.:	Automatic
Electronics temp.:	F: -40° to 160° C: -40° to 71°
Pressure:	30 psi (2 bar) @ 25° C., derated @ 1.667 psi (.113 bar) per °C. above 25° C.
Enclosure rating:	NEMA 4X (IP65)
Enclosure vent:	Water tight membrane
Encl. material:	PC/ABS FR
Trans. material:	PVDF Kynar®
Process mount:	LU72/5: 1" NPT (1" G) LU71/3: 2" NPT (2" G)
Mount. gasket:	Viton®
Conduit entrance:	Dual, 1/2" NPT
Classification:	General purpose
CE compliance:	EN 61326 EMC (pending) EN 61010 safety

### EchoSwitch

### Ordering

LU7

Sensor range / size	
5	1.2m (4') / 1"
2	3m (9.8') / 1"
1	5m (16.4') / 2"
3	8m (26.2') / 2"
Supply voltage	
0	95-250 VAC
8	12-28 VDC
Process mount (1) (2)	
0	NPT (US)
6	G (Metric)

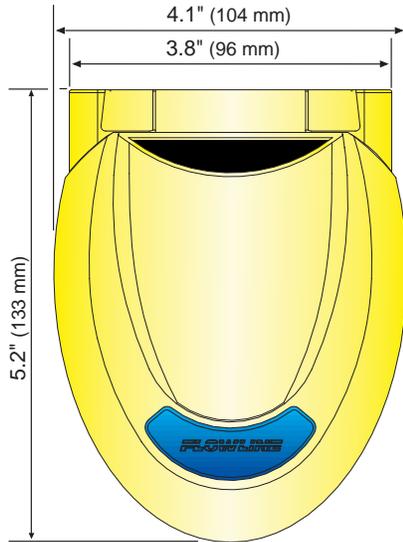
### Ordering Notes

- For installation on open tanks, order the LM50-1001-1 (1" NPT), LM50-1061-1 (1" G) LM50-1001 (2" NPT) or LM50-1061 (2" G) side mount bracket.

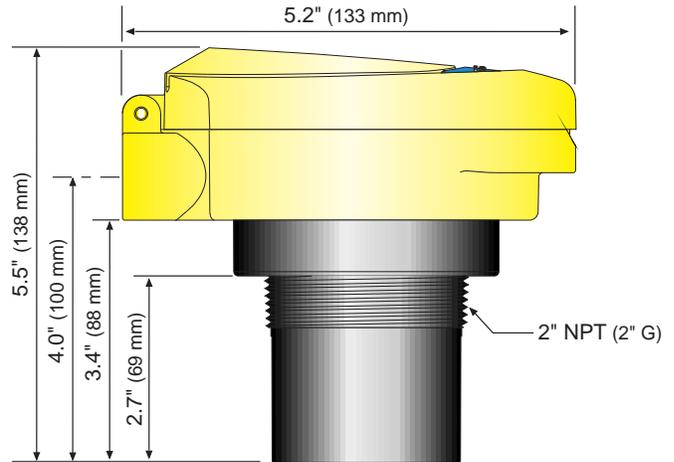


# EchoSwitch™ Multi-Point Ultrasonic Level Switch

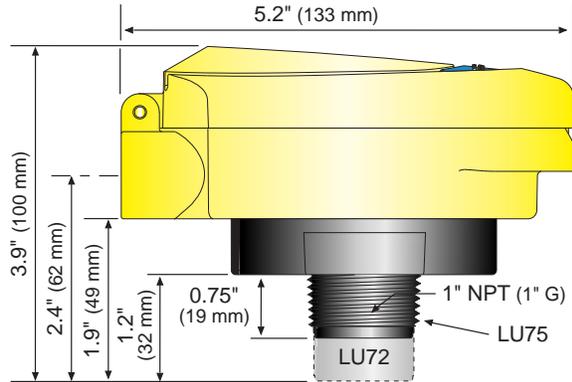
**LU71/72/73/75 Top View**



**LU71/73 Profile**

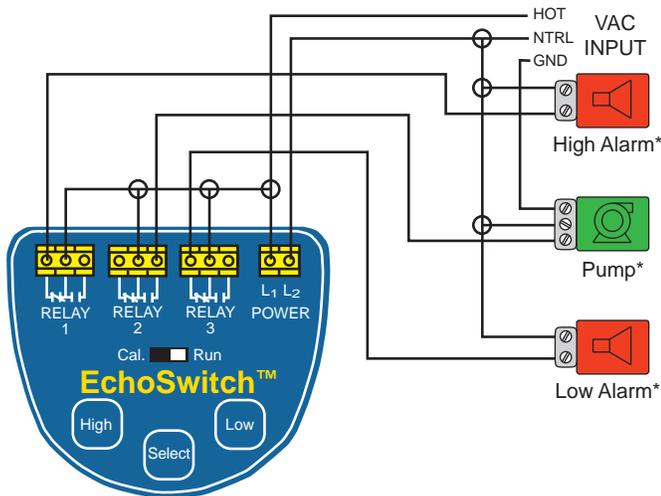


**LU72/75 Profile**

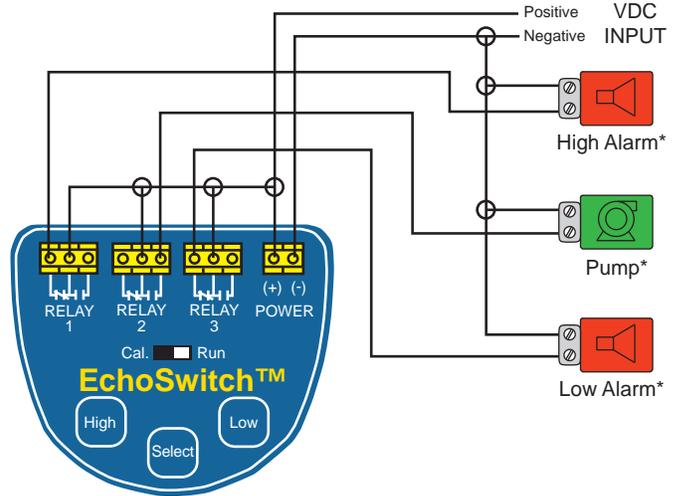


Specifications are subject to change without notice.

**50\_5 VAC Powered EchoSwitch**



**58\_5 VDC Powered EchoSwitch**



**Warning:** The use of an appropriate motor starter or secondary relay is required with pumps, valves or alarms to prevent damage to the relay contacts. The use of suppressors (snubbers) is recommended when switching inductive loads.