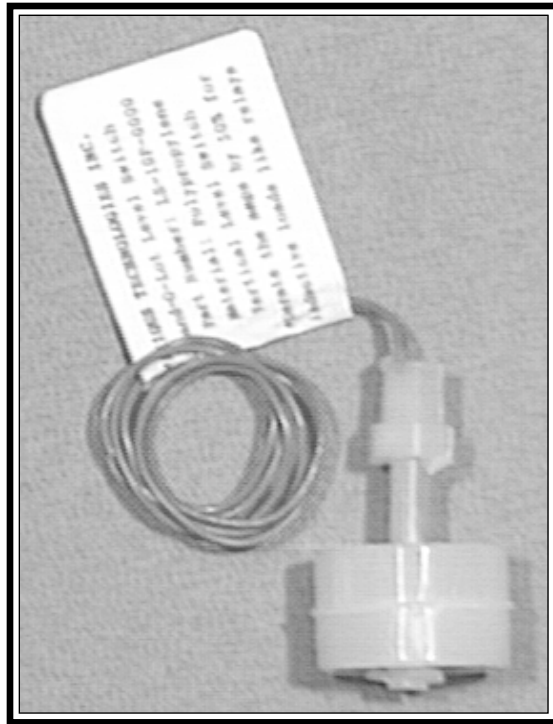


MICRO SINGLE POINT LIQUID LEVEL SWITCH



ELECTRICAL CONSIDERATIONS

The maximum amperage due to the contact point air gap is .5 amps below 20 Vdc or 24 Vac. The maximum power switching above 20 Vdc or 24 Vac is 10 Watts to 200 Vdc or 12 VA to 230 Vac. Air gap is the actual physical distance separating the switch contacts when open, which translates into the switches ability to resist electrical flow. High voltages have a greater ability to jump across the switch contacts and lead to contact pitting and premature failure, therefore the lower current ratings. The general relationship used in determining maximum current flow at higher voltages is: Current (Amps) equals Rated Switch Power (P) divided by Operating Voltage (V). See the Maximum Switching Capacity Graph.

The LS-10 is a small vertically traveling micro single point magnetically activated liquid level switch capable of switching 10 watts up to 200 Vdc or 12 VA up to 230 Vac. It is available in normally closed or normally open single pole single throw dry contact configurations. The LS-10 is ideally suited for mounting through the top of a tank to sense levels. This switch is designed for use with light loads such as micro processor analog inputs and outputs, logic control relays (similar to our CR-100 panel mount control relays and control modules), piezo electric buzzers, and small indicator lights. Materials of construction are unpigmented natural Polypropylene and PVDF. The LS-10 is economically priced and ideally suited for OEM applications. Custom design variations are available upon request.

OPERATION

At the heart of this unit is a magnetically sensitive switch containing two magnetically polarized contacts, which are attracted to each other when exposed to a magnetic field. When the contacts come together an electric current can flow. When the magnetic field is removed the contacts separate and electrical current flow is interrupted.

The major components of the LS-10 are the specially oriented magnets within the float and the switch within the float shaft. The normally open configuration occurs when the float is closest to the snap ring, and the magnets are located at the bottom of the float. As the float travels up the shaft due to rising liquid level the magnetic field closes the switch contacts completing the circuit. As the level lowers the float the contacts open breaking the circuit. Normally closed operation is achieved by inverting the float orienting the magnets at the top of the float. The switch contacts will be closed when the level is below the switch and open as the level rises.

Safe and Reliable Switch Selection - In selecting a level switch, the total system design must be considered to assure safe, trouble-free performance. Switch function, material compatibility, adequate power ratings, proper installation, operation and maintenance are the responsibility of the system designer and user. Please feel free to ask for a copy of our Product Warranty.

LS-10 SWITCH SPECIFICATIONS

MATERIAL: Polypropylene (PP)
Polyvinylidene Fluoride (PVDF)

WIRE: UL 1061 PVC coated solid single strand standard. Other wire optional.

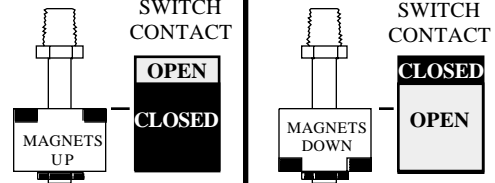
BUOYANCY: 50% for Polypropylene
30% for Polyvinylidene Fluoride

MOUNTING ATTITUDE: +/- 30 degrees in clean liquid

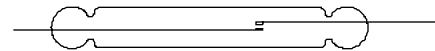
COLUMN / TANK CLEARANCE: Flush in clean liquid.
3 inches from the bottom of the tank in precipitate or sediment bearing liquids.

ANTI - TURBULANCE SHROUD: Optional

MAGNETIC NORMALLY CLOSED OR OPEN ORIENTATION



SCHEMATIC SYMBOL

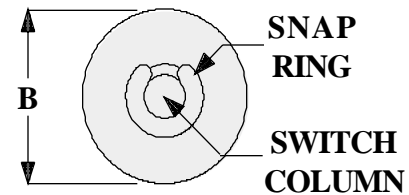
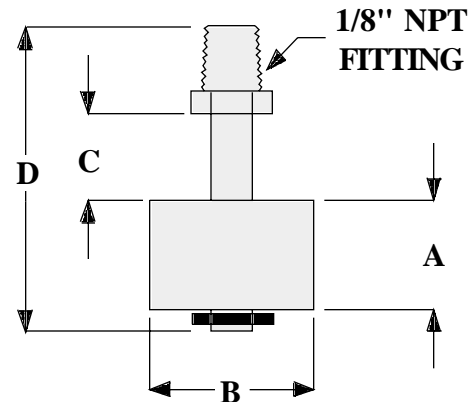


MAXIMUM RECOMMENDED SWITCH LOADS

VOLTS	DC (AMPS)	AC (AMPS)
5	.5	.5
12	.5	.5
24	.41	.5
48	.20	.25
120	.08	.10
200	.05	.06
230	N/R	.05

The above table was calculated using $P=IV$ where P =power was 10Watts or 12VA. I =amperes, V =Voltage. For inductive loads, such as relays and solenoid valves, de-rate the amps in the above chart by 50%. Exceeding the current ratings will weld the switch contacts together.

DIMENSIONAL DATA



PART NUMBER	WET END MATERIAL	DIMENSIONS				TEMP -VS- PRESSURE (PSIG)			
		A	B	C	D	70°F	140°F	180°F	230°F
LS-10P-0000	POLYPRO	.75	1.08	.63	2.10	80	30	0	N/R
LS-10F-0000	PVDF	.75	1.08	.63	2.10	80	60	30	0

VARIOUS TECHNOLOGIES INCORPORATED
2720 AIELLO DRIVE BUILDINGS C & D
SAN JOSE, CALIFORNIA 95111
PHONE (408) 972-4460 FAX (408) 972-4125

Distributed by: