

LEVEL SWITCH

MODEL L-21N L-21VCR

The L-21 is a low cost, high performance level switch made from highly durable plastics. It features a variable liquid level differential and a single point pump up/pump down level control.

Interchangeable differential band modules, for all non-L-21+ versions, allow for 5 minute on-site switching of differentials from 1.0" to 2.0" to 3.0" to 5.0" in any sequence to satisfy variable operational requirements as they occur. Its large differential provides immunity to nuisance switch tripping due to severe wave action and turbulence. The large differential also provides very low cost single point pump up/pump down level control.

Maintenance and checkout is a snap for plant maintenance personnel using any standard multimeter. Each unit comes with detailed instruction manual and parts list. Plastic test strips are available for testing in your particular real world chemical environment.



KEY FEATURES

Working Fluid Specific Gravity	0.7 minimum
Working Temp	200°F (93°C) Maximum
Working Pressure	250 psig (1.724 MPa)
Process Connection	1¼" NPT
Electrical Switch	SPDT 15A
Enclosure	NEMA 6P / IP 67

TYPICAL USES

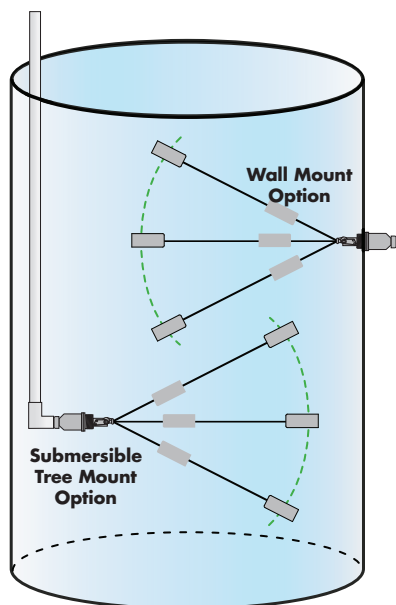
Water Level Control In:

Cooling Towers	Plating Tanks
Washing Tanks	Fish Farms
Fountains	Aquariums

TYPICAL WORKING FLUIDS

Clean Water	Contaminated Ground Water
Filtered Sewage	Filtered Waste Water
Mild Acids	Inorganic Aqueous Solutions
Mild Bases	Sea Water

LIQUID LEVEL DIFFERENTIAL DIMENSIONS



	A	B	C	D	E
Level Differential Inches	Outside Mount	Inside Mount	Deep Below Switch	Depth Above Switch	
~1"	4.5"	7.5"	~1"	~0	
~2"	5.2"	8.2"	~1"	~1"	
~3"	5.9"	8.9"	~1"	~2"	
~5"	7.3"	10.3"	~3"	~2"	

WEIGHT: 5 oz.
142 g



541 Kinetic Drive
Oxnard, CA 93030
www.harwil.com
16.299

Phone: (805) 988-6800
Fax: (805) 988-6804
Email: harwil@harwil.com

MODEL L-21N L-21VCR

ELECTRICAL CONNECTION					
GROMMET	CABLE O.D.	DIAGRAM			
A	0.25"				
AA	0.30"				
B	0.37"				
C	0.50"				
CONDUIT FITTINGS (AVAILABLE AT EXTRA COST)					
F	0.5" straight		F90°	0.5" 90°	

SAMPLE PART NUMBERS				
OPTION 1: L-21N / 15A / 1 / A				
BASE MODEL		↑	↑	↑
SWITCH CAPACITY				
LIQUID LEVEL DIFFERENTIAL				
GROMMET SIZE				

OPTION 2: L-21N / 15A / 5 / F				
BASE MODEL		↑	↑	↑
SWITCH CAPACITY				
LIQUID LEVEL DIFFERENTIAL				
½" FLEXIBLE CONDUIT FITTING				

✦ TECHNICAL SPECIFICATIONS

HYSTERESIS (Δ LIQUID LEVEL TO ACTIVATE/DEACTIVATE SWITCH)

≈ 5" max. travel (N/VCR). ≈ 15" max. travel (+).

ELECTRICAL SWITCH CHARACTERISTICS

SPDT 4A @ 125VAC (Tungsten lamp load)
 15 A, ½ hp @ 125 or 250VAC
 ½A @ 125VDC, ¼A @ 250VDC

Note: Model L-21 employs magnetic coupling between float arm and switch body. Magnetic particles can accumulate on and around magnet housing which may affect proper operation. Please conduct appropriate fluid magnetic particle evaluation and operational tests prior to and during installation and use.

WORKING FLUID SPECIFIC GRAVITY

0.7 minimum

L-21N (NORYL®)

WORKING PRESSURE: 250 psi max. continuous

WORKING TEMPERATURE: 180°F max. continuous.

WETTED MATERIALS: Body, Float and Bushing: Noryl® (PPO) (10% glass fibers) screws + shaft: 316 stainless steel

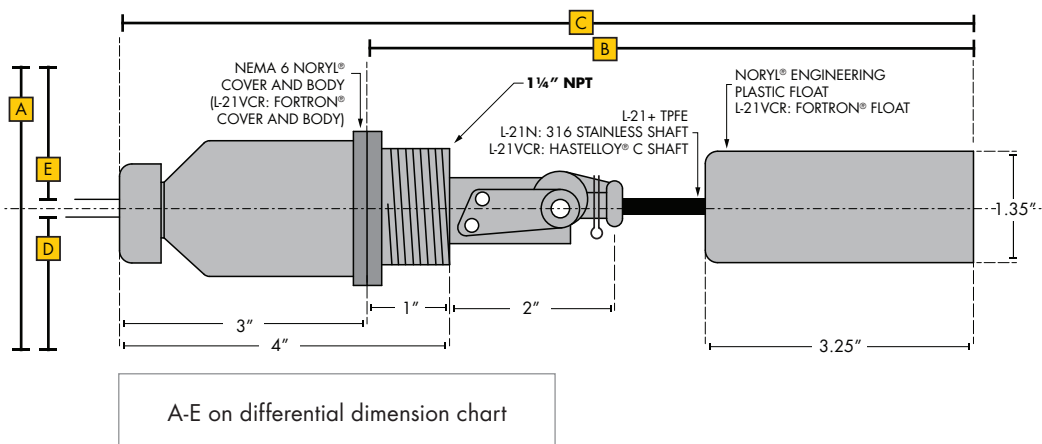
L-21VCR (FORTRON®)

WORKING PRESSURE: 250 psi max. continuous

WORKING TEMPERATURE: 200°F max. continuous.

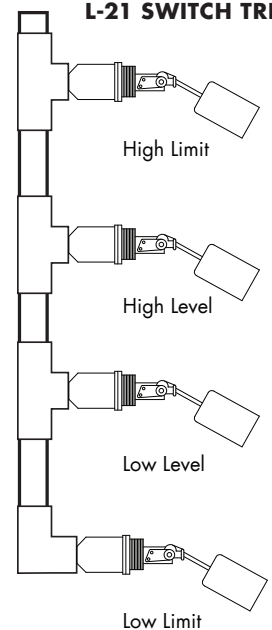
WETTED MATERIALS: Body, Float and Bushing: Fortron® (PPO) (40% glass fibers) screws + shaft: HASTELLOY® C

▲ INSTALLATION DIMENSIONS



A-E on differential dimension chart

L-21 SWITCH TREE



- Installation drawing and a numbered parts list is supplied with each unit.
- Special one-day delivery is available.