

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 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.



KEY FEATURES

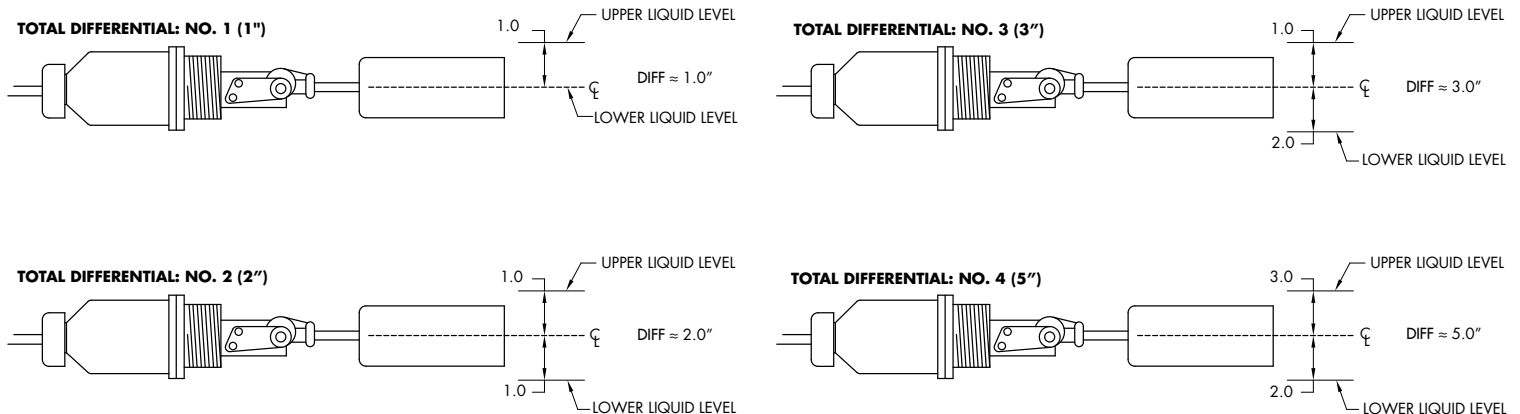
| | |
|--------------------------------|-----------------------------|
| Working Fluid Specific Gravity | 0.7 minimum |
| Working Temp | 200°F (93°C) Maximum |
| Working Pressure | 250 psig (1724 kPa) |
| Process Connection | 1¼" NPT |
| Electrical Switch | SPDT 15A |
| Enclosure | NEMA 6P / IP 67 |



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



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

v8.01

WEIGHT: 5 oz.
142 g

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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(STR) - 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-21VCR | | / 15A | / 5 | / F |
|---------------------------|--|-------|-----|-----|
| BASE MODEL | | | | |
| SWITCH CAPACITY | | | | |
| LIQUID LEVEL DIFFERENTIAL | | | | |
| ½" FIPT | | | | |

✦ TECHNICAL SPECIFICATIONS

HYSTERESIS (Δ LIQUID LEVEL TO ACTIVATE/DEACTIVATE SWITCH)
1", 2", 3" or 5" travel (based on model selected)

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 and shaft: 316 stainless steel

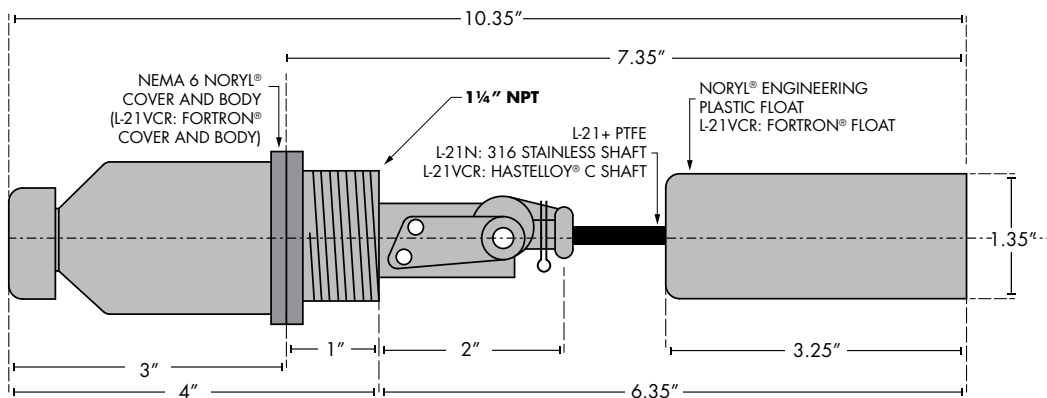
L-21VCR (FORTRON®)

WORKING PRESSURE: 250 psi max. continuous

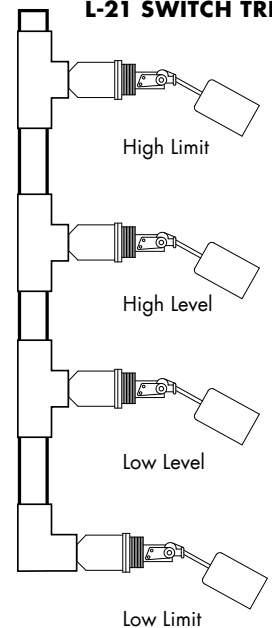
WORKING TEMPERATURE: 200°F max. continuous.

WETTED MATERIALS: Body, Float and Bushing: Fortron® (PPS) (40% glass fibers); Screws and shaft: HASTELLOY® C

▲ INSTALLATION DIMENSIONS



L-21 SWITCH TREE



- Installation drawing and a numbered parts list is supplied with each unit.