

**2-4** LIQUID LEVEL CONTROL SERIES

# Resistance Sensors (Dual Probe) Models NS127, NS128 and NS143

## FEATURES

- 100% functionally tested
- Isolated UL Class II sensing voltage
- 1/4" male fast-ons for circuit connection
- Conformal coating to protect circuit from harsh environments
- File #E61377 Model NS127 and NS128 only

**Operating Logic:** In the Model NS127 (Pump Down) the output relay is de-energized until the liquid reaches the high probe. When liquid touches the high probe, the output relay is activated until the level drops below the low probe.

In Models NS128 and NS143 (Pump Up) the output relay is energized until the liquid reaches the high probe. When the liquid touches the high probe, the output relay is deactivated until the level drops below the low probe.

If the tank is non-conductive, a third (common) probe must be installed at a level where it will always be submerged.

## SPECIFICATIONS

### CONTROL TYPE

#### On/Off Resistance Sensing:

NS127: Probe resistance below set point activates relay  
NS128 and NS143: Probe resistance above set point activates relay

**Sensing Voltage:** 15 VAC, max. RMS

**Sensing Current:** 2 mA, max. RMS

#### Sensitivity Adjustment:

NS127 and NS128: Factory set at 100k ohms  $\pm 10\%$   
NS143: Factory set at 50 K ohms  $\pm 10\%$

### OUTPUT

#### Type:

NS127 and NS128: Isolated relay contacts, SPDT (1 Form C)  
NS143: Relay contact SPST-NO switches L1 to normally open terminals

#### Rating:

NS127 and NS128: 10 A resistive at 120 VAC, 5 A resistive at 240 VAC  
NS143: 5 A resistive at 120, 240 VAC, 100 mA at 5 VDC minimum load current

#### Life:

Mechanical:  
NS143: 5,000,000 cycles  
NS127, NS128: 10,000,000  
Electrical: 100,000 min. at full load

### INPUT

**Operating Voltage:** 120, 240 VAC,  $\pm 10\%$

**Power Consumption:** 3.0 VA max.

**Frequency:** 50/60 Hz

### PROTECTION

**Isolation:** 1500 VAC between probe and other terminals

### MECHANICAL

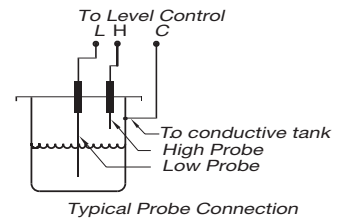
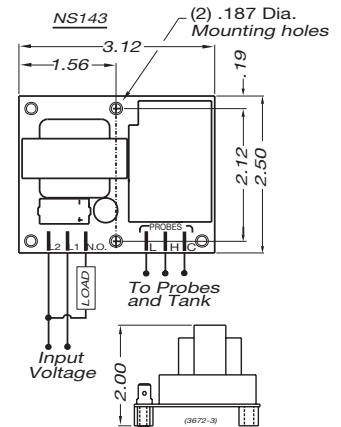
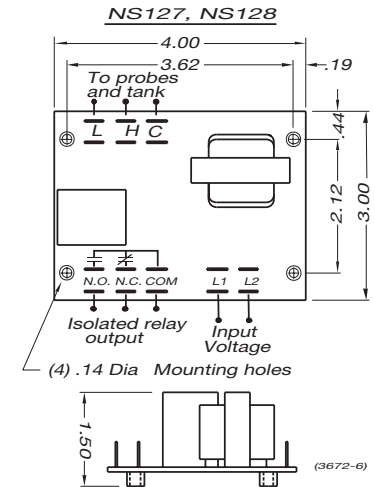
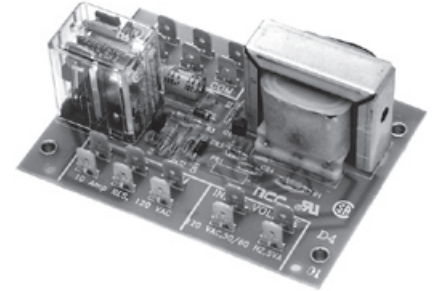
**Terminations:** 1/4" x .032" male fast-ons

#### Mounting:

NS127 and NS128: 4 - .141" dia. mounting holes  
NS143: 2 - .187" dia. mounting holes

### ENVIRONMENTAL

**Operating Temperature:** -20°C to 55°C



## ORDERING INFORMATION

LOGIC TYPE	INPUT VOLTAGE	PART NUMBER
Pump Down	120 VAC	LNC-NS127-120
Pump Down	240 VAC	LNC-NS127-240
Pump Up	120 VAC	LNC-NS128-120
Pump Up	240 VAC	LNC-NS128-240
Pump Up	120 VAC	LNC-NS143-120
Pump Up	240 VAC	LNC-NS143-240

ACCESSORY	PART NUMBER
Probe Holder with Ground	LLH-11383-010
Probe, 6" Long, 1/4" Dia., S.S.	LLP-06.00-OSS
Probe, 12" Long, 1/4" Dia., S.S.	LLP-12.00-OSS
Probe, 24" Long, 1/4" Dia., S.S.	LLP-24.00-OSS
Probe Assembly, Plastic Body	LLP-001/2-011