

# Resistance Sensors (Dual Probe)

## Models NS129, NS132 and NS139

### FEATURES

- 100% functionally tested
- Solid state sensing circuitry
- Isolated UL Class II sensing voltage
- Adjustable sensitivity by Trimpot
- #6 screw terminal connections
- Conformal coating to protect circuit from harsh environments
- File #E61377

**Operating Logic:** In Models NS129 and NS139 (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 NS132 (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:

NS129 and NS139: Probe resistance below set point activates relay

NS132: Probe resistance above set point activates relay

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

**Sensing Current:** 2.0 mA, max. RMS

**Sensitivity Adjustment:** Adjustable by a Trimpot from .1-100 K ohms +10%, -0%

#### INPUT

**Operating Voltage:** 120, 240 VAC, ±10%

**Power Consumption:** 11 VA max. for 120 VAC units

**Frequency:** 50/60 Hz

#### OUTPUT

##### Type:

NS129 and NS132: Relay contacts SPDT (1 Form C)

NS139: Relay contacts DPDT (2 Form C)

**Rating:** 10 A resistive at 120 VAC; 5 A resistive at 240 VAC; 100 mA at 5 VDC min. load current

##### Life:

Mechanical: 10,000,000 cycles

Electrical: 100,000 min. at full load

#### PROTECTION

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

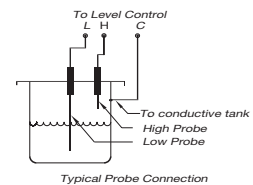
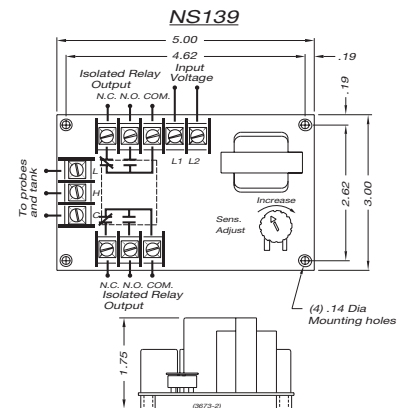
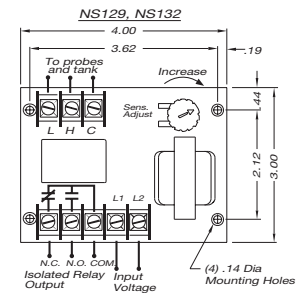
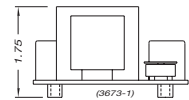
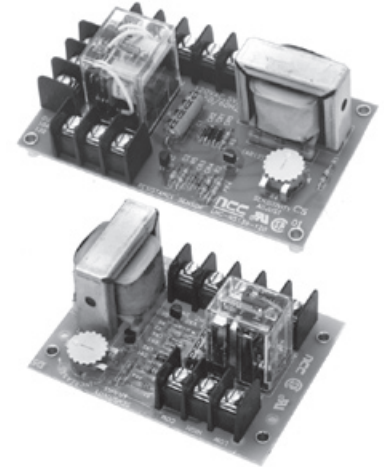
#### MECHANICAL

**Terminations:** Terminal blocks with #6 screw connections

**Mounting:** 4-.141" dia. mounting holes

#### ENVIRONMENTAL

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



### ORDERING INFORMATION

| LOGIC TYPE | INPUT VOLTAGE | PART NUMBER   |
|------------|---------------|---------------|
| Pump Down  | 120 VAC       | LNC-NS129-120 |
| Pump Down  | 240 VAC       | LNC-NS129-240 |
| Pump Down  | 120 VAC       | LNC-NS139-120 |
| Pump Up    | 120 VAC       | LNC-NS132-120 |
| Pump Up    | 240 VAC       | LNC-NS132-240 |

| 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 |