



Resistance Sensors (Single Probe, Pump Up Logic with Time Delayed Output) Models NS156 and NS159

FEATURES

- 100% functionally tested
- Solid state sensing circuitry
- Isolated UL Class II sensing voltage
- 1/4" male fast-ons for circuit connection
- Conformal coating to protect circuit from harsh environments
-   File #E61377

Operating Logic: As liquid is removed from a tank and contact with a probe is interrupted, a fixed time delay is started. At the end of the time delay, the output is activated until the level rises and contacts the probe.

On Model NS159, when the output is turned on, a fault timer is started. If the output is still on at the end of the fault time, the fault timer will shut the output off until voltage is removed and re-applied to the control system. The purpose of the fault timer is to eliminate overflow due to an open probe.

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

SPECIFICATIONS

CONTROL TYPE

On/Off Resistance Sensing: Probe resistance above set point activates fill output after a fixed time delay

Sensing Voltage: 15 VAC, max. RMS

Sensing Current: 2 mA, max. RMS

Sensitivity Adjustment:

NS156: Factory set at 100 K ohms $\pm 10\%$

NS159: Factory set at 500 K ohms $\pm 10\%$

Activate Time Delay:

NS156: 5 sec. ± 1 sec.

NS159: 1 sec. $\pm .5$ sec.

Fault Timer Delay, NS159: 300 sec. $\pm 15\%$

Contact factory for other sensitivity and time delay requirements.

INPUT

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

Power Consumption: 3.0 VA max.

Frequency: 50/60 Hz

OUTPUT

Type:

NS156: Solid state switch, .75 A at 25°C, .34 A at 77°C

NS159: Relay contact, 2 A at 120 VAC

Life:

NS156: 1,000,000 cycles min. at full load

NS159: 300,000 cycles min. at full load

PROTECTION

Isolation: 1500 VAC between probe and other terminals

Transient Voltage: Protected by 30 joule metal oxide varistor

Coating: Conformally coated with RTV to protect against moisture

MECHANICAL

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

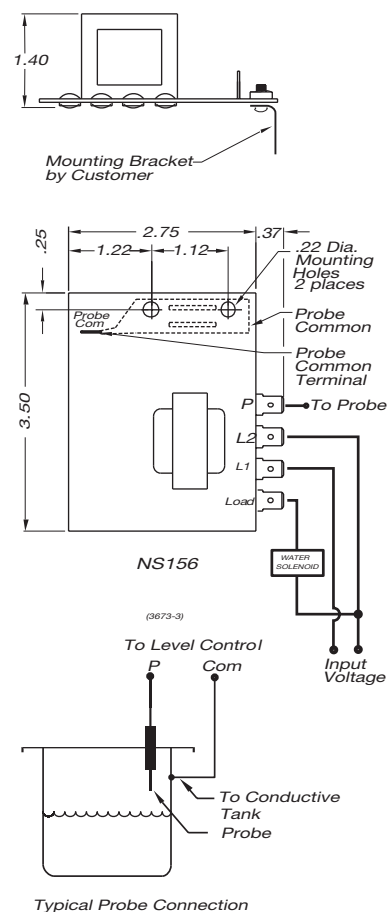
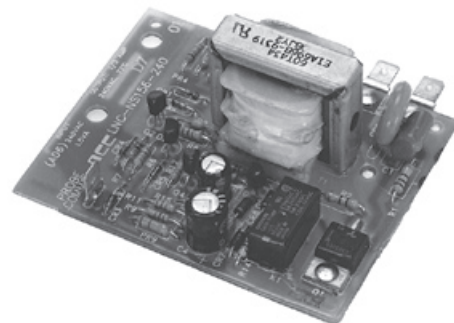
Mounting: 2 - .218" dia. holes

ENVIRONMENTAL

Operating Temperature:

NS156: +5°C to 77°C

NS159: +5°C to 65°C



ORDERING INFORMATION

LOGIC TYPE	INPUT VOLTAGE	PART NUMBER
Pump Up	120 VAC	LNC-NS156-120
Pump Up	240 VAC	LNC-NS156-240
Pump Up/Fault Timer	120 VAC	LNC-NS159-120

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