

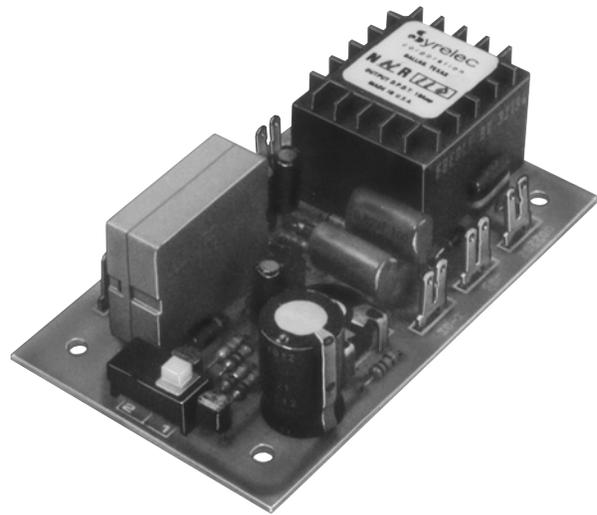
# NNR SERIES

## LIQUID LEVEL CONTROL

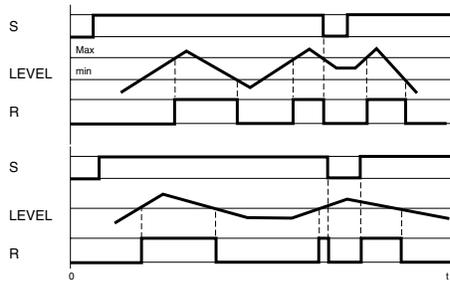
### PUMP UP OR DOWN

### SWITCH SELECTABLE

UL listed CSA recognized



- **10 Amp SPDT Rated**
- **Sensitivity Adjustment 4.7 kΩ to 47 kΩ**
- **One, Two or Three Probe Operation**
- **24 VAC to 220 VAC Voltages**



A - Pump down function: the output relay energizes when the liquid level reaches the high or max. probe. It remains energized until the level is below the low or min probe. The relay will remain de-energized until the high level is again reached. This control may also be used with only two probes by connecting the maximum and common terminals together. The output is energized when the low probe is in contact with the liquid.

B - Pump up function: when power is supplied to the unit, the output relay is energized. When the level reaches the high probe the relay is de-energized. The relay is energized again when the level falls below the low probe. The control may also be used with only two probes by connecting the maximum and common terminals together. The output is de-energized when the level reaches the low probe.

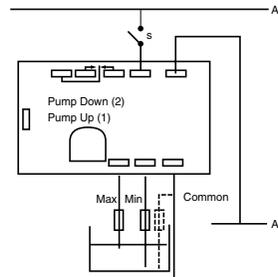
In both functions, If the container is conductive, It may be used as the common probe in some applications

**SPECIFICATIONS:**

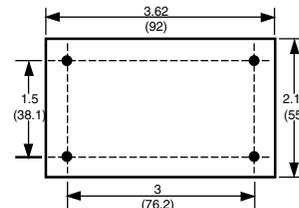
<b>Input</b> .....	24, 48, 110, 220 VAC
	±15% (50/60 Hz)
<b>Maximum power consumption</b> ..	24 VAC: 1.5 VA
	48 VAC: 1.7 VA
	110 VAC: 2 VA
	220 VAC: 2 VA
<b>Output</b> .....	SPDT relay
<b>Contact material</b> .....	AgCdO (90/10)
<b>Maximum loading</b> .....	10 A AC resistive 1A DC inductive
<b>Maximum switching voltage</b> .....	250 VAC 30 VDC
<b>Relay maximum power rating</b> ..	2500 VA 30 VDC
<b>Mechanical life of relay</b> .....	3 x 10 <sup>7</sup> operations
<b>Electrical life of relay</b> .....	2 x 10 <sup>5</sup> at 2200 VA resistive load
<b>Probe isolation</b> .....	Switching contact: 2000 VA
	Electrodes: 2000 VAC
<b>Probe sensitivity</b> .....	4.7 K ohm to 47 K ohm
<b>Probe voltage</b> .....	24 VAC, 60 Hz
<b>Probe current</b> .....	2 mA max.
<b>Operating temperature</b> .....	+14°F to 140°F -10°C to +60°C
<b>Weight</b> .....	4.6 oz. (130g)

**Note:** For best results use shielded cable with the probes and do not run probe cables with other wires.

**WIRING DIAGRAM:**



**DIMENSIONS:**



**ORDERING INFORMATION:**

<p><b>N</b> MOUNTING</p> <p><b>MOUNTING</b> N = Open PC Board</p>	<p><b>NR</b> SERIES</p> <p><b>SERIES</b> NR</p>	<p><b>220A</b> INPUT POWER</p> <p><b>INPUT POWER</b> 24A = 24 VAC 48A = 48 VAC 110A = 110 VAC 220A = 220 VAC</p>
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Products and specifications subject to change without notice.  
Consult factory for application assistance.