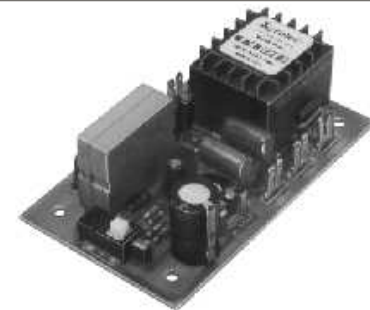


NNR Liquid-Level Controllers

[Crouzet Products](#) / [Automation Controls](#) / [Control Relays](#) / [Liquid Level Controllers](#) / [NNR](#)

PRODUCT FEATURES

- ✚ Open PCB liquid level controller
- ✚ Switch selectable pump-up / pump-down control
- ✚ Sensitivity adjustable from 4.7K to 47K Ohms
- ✚ One, two, or three probe operation
- ✚ 10 amp SPDT output relay



NNR Series Liquid-Level Controllers

<u>Mounting Style</u>	<u>Input Power</u>	<u>Output</u>	<u>Series</u>	<u>Part number</u>
Open Board	24 V AC	SPDT	NNR	NNR24A
Open Board	48 V AC	SPDT	NNR	NNR48A
Open Board	110 V AC	SPDT	NNR	NNR110A
Open Board	220 V AC	SPDT	NNR	NNR220A

NNR SERIES

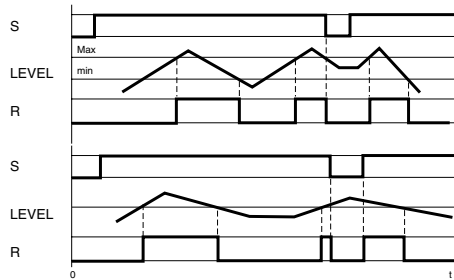
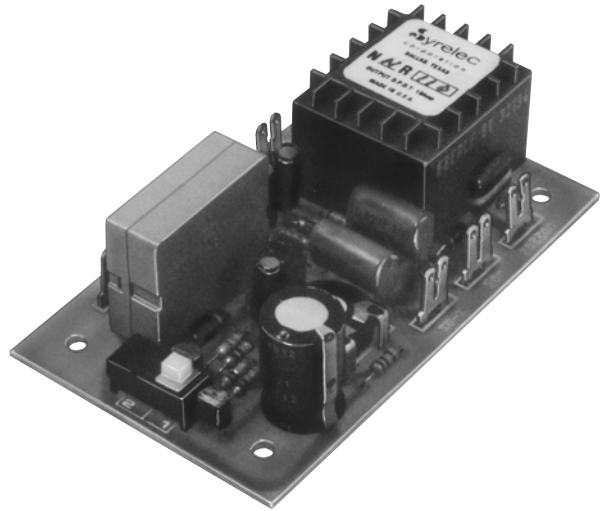
LIQUID LEVEL CONTROL

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.

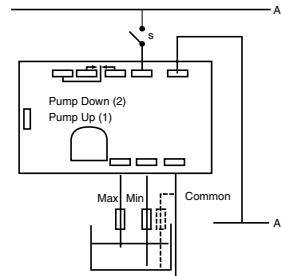
In both functions, If the container is conductive, It may be used as the common probe in some applications

SPECIFICATIONS:

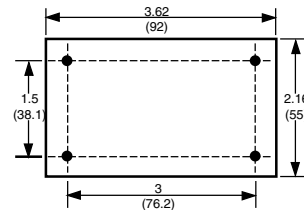
Input	24, 48, 110, 220 VAC
	±15% (50/60 Hz)
Maximum power consumption ..	24 VAC: 1.5 VA
	48 VAC: 1.7 VA
	110 VAC: 2 VA
	220 VAC: 2 VA
Output	SPDT relay
Contact material	AgCdO (90/10)
Maximum loading	10 A AC resistive 1A DC inductive
Maximum switching voltage	250 VAC 30 VDC
Relay maximum power rating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



- INPUT POWER**
- 24A = 24 VAC
 - 48A = 48 VAC
 - 110A = 110 VAC
 - 220A = 220 VAC