

## WLC NINA™ SERIES MODELS

- Dry Contacts
- Intrinsically Safe Sensors
- Dirty Electrode Detection
- Solid State Reliability
- Modular Plug-in Design
- 14-Pin Socket
- Power Loss Detection
- LED Monitoring

## WLC NINA™ Series General Purpose Control

The WLC NINA™ Series may look like the competition but the unit is revolutionary in its design. The WLC NINA Series is perfect in any application where water level management is important. It uses a microprocessor that monitors all probes for correct operation and then provides the corresponding outputs to drive the dry contacts. The Modular construction insures user-friendly operation. By using a very low voltage and current, WLC NINA Series probes never foul or degrade whenever using solid state sensors.

### Applications

- Low Water Cutoff
- Point level
- Alarms
- Any application that requires filling with a valve or pump.

### Specifications\*

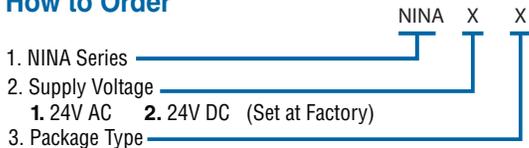
Isolation Voltage, input to output	150 volts peak
Maximum operating temperature	+60 degrees C
Minimum operating temperature	-40 degrees C
Mounting style	plug in
Maximum Number of input***	8 (including two for power)
Maximum Number of outputs	6 (including the common relay connection)
Output Type**	Dry contacts (rated at 0.5 Amp Max. 24 V AC/DC)
Overall Height	2.68" (6.81mm) not including connector pins
Overall Length	2.40" (60.96mm)
Overall Width	1.78" (45.2mm)
Overall Dimensions	3.05" x 2.40" x 1.78" (includes connector pins)
Probe Voltage	2.0 VAC Max. at Approx. 1uA max.
Sensitivity	Approx. 200K Ohms
Supply Voltage	Either 24 VDC or 24VAC (Set at factory)
Termination Type	14 Pin (Proprietary to WaterLine Controls)
Supply Current	Approx. 0.05 Amp (Depending on operational mode)
DIN Rail	35mm

\*Specifications subject to change without notification.

\*\* All relay outputs use the same common leg.

\*\*\*Use shielded wire for sensor or float connections.

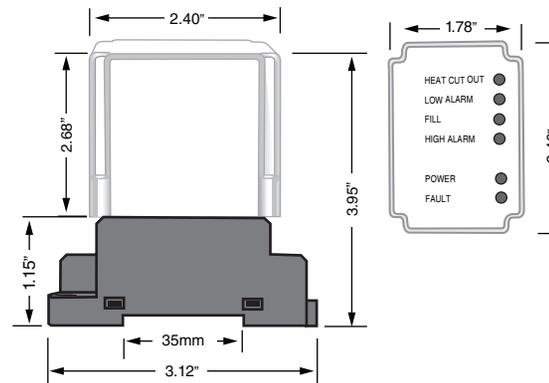
### How to Order



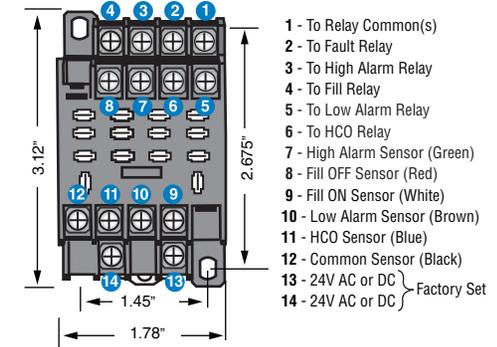
1. NINA Series
2. Supply Voltage
  1. 24V AC
  2. 24V DC (Set at Factory)
3. Package Type

1. Fill
2. Fill with LA
3. Fill with HA
4. Fill with HA & LA
5. Fill with HCO and LA
6. Fill with HCO and LA and HA
7. Dual Fill
8. Dual Fill with LA
9. Dual Fill (Alternating)
10. Dual Fill (Alternating) and LA
11. Dual Fill (Alternating) and HA
12. Dual Fill (Alternating) and LA and HA
13. Dual Fill (All OFF) and LA and HA
14. Dual Fill (Separate OFF) and LA and HA

### Dimensions



### Wiring



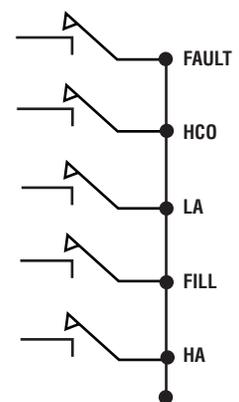
NOTE: All outputs are Dry Contacts.

### PRODUCT FUNCTION TRUTH TABLE

MODEL	DRY CONTACTS						
	Fault / Power Loss	Heater Cut Off	Low Alarm	High Alarm	Fill 1	Fill 2	Alternate
NINA X1	X	X			X		
NINA X2	X	X		X	X		
NINA X3	X	X			X	X	
NINA X4	X	X		X	X	X	
NINA X5	X	X	X	X	X		
NINA X6	X	X	X	X	X	X	
NINA X7	X	X			X	X	
NINA X8	X	X		X	X	X	
NINA X9	X	X			X	X	
NINA X10	X	X	X		X	X	X
NINA X11	X	X		X	X	X	X
NINA X12	X	X	X	X	X	X	X
NINA X13	X	X	X	X	X	X	
NINA X14	X	X	X	X	X	X	

• The Blank spaces below mean "No Connection or Function"

### RELAY OUTPUTS



24V AC or 24V DC  
Max @ 0.25A Max



# DRAIN MODELS

## WATER LEVEL CONTROLS

Waterline Controls  
1930 E. 3rd Street Suite 8  
Tempe, Arizona 85281  
888-905-1892 • info@waterlinecontrols.com

### WLC NINA™ SERIES MODELS

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- Dirty Electrode Detection
- Solid State Reliability
- Modular Plug-in Design
- 14-Pin Socket
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### Applications

- Pump Stations
- Lift Stations
- Point level
- Alarms

### Specifications\*

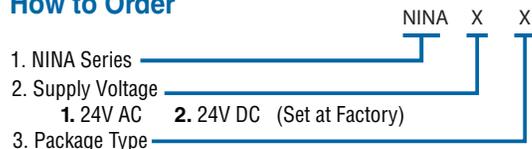
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Maximum operating temperature	+60 degrees C
Minimum operating temperature	-40 degrees C
Mounting style	plug in
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Output Type**	Dry contacts (rated at 0.5 Amp Max. 24 V AC/DC)
Overall Height	2.68" (6.81mm) not including connector pins
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Sensitivity	Approx. 200K Ohms
Supply Voltage	Either 24 VDC or 24VAC (Set at factory)
Termination Type	14 Pin (Proprietary to WaterLine Controls)
Supply Current	Approx. 0.05 Amp (Depending on operational mode)
DIN Rail	35mm

\*Specifications subject to change without notification.

\*\*All relay outputs use the same common leg.

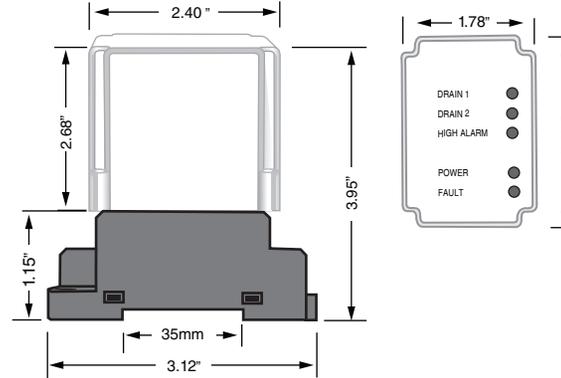
\*\*\*Use shielded wire for sensor or float connections.

### How to Order

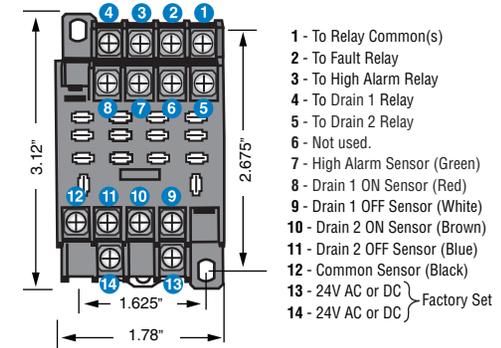


- 15. Drain (Pump down)
- 16. Drain with HA
- 17. Dual Drain
- 18. Dual Drain with HA
- 19. Dual Drain with Alternate
- 20. Dual Drain with Alternate and HA

### Dimensions



### Wiring



- 1 - To Relay Common(s)
- 2 - To Fault Relay
- 3 - To High Alarm Relay
- 4 - To Drain 1 Relay
- 5 - To Drain 2 Relay
- 6 - Not used.
- 7 - High Alarm Sensor (Green)
- 8 - Drain 1 ON Sensor (Red)
- 9 - Drain 1 OFF Sensor (White)
- 10 - Drain 2 ON Sensor (Brown)
- 11 - Drain 2 OFF Sensor (Blue)
- 12 - Common Sensor (Black)
- 13 - 24V AC or DC
- 14 - 24V AC or DC } Factory Set

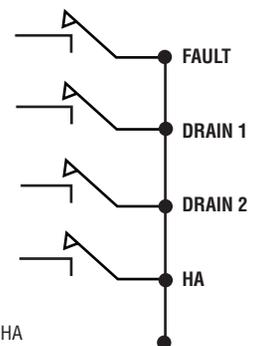
NOTE: All outputs are Dry Contacts.

### PRODUCT FUNCTION TRUTH TABLE

MODEL	DRY CONTACTS					
	Fault / Power Loss	High Alarm	Drain 1	Drain 2	Alternate	
NINA X15	X	X			X	DRAIN
NINA X16	X	X	X		X	DRAIN WITH HA
NINA X17	X	X		X	X	DUAL DRAIN
NINA X18	X	X	X	X	X	DUAL DRAIN WITH HA
NINA X19	X	X		X	X	DUAL DRAIN (ALTERNATING)
NINA X20	X	X	X	X	X	DUAL DRAIN WITH (ALTERNATING) AND HA

• The Blank spaces below mean "No Connection or Function" • X= 1 or 2 based on voltage requirements (24V AC or 24V DC)

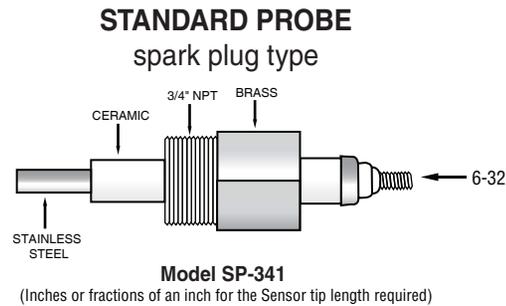
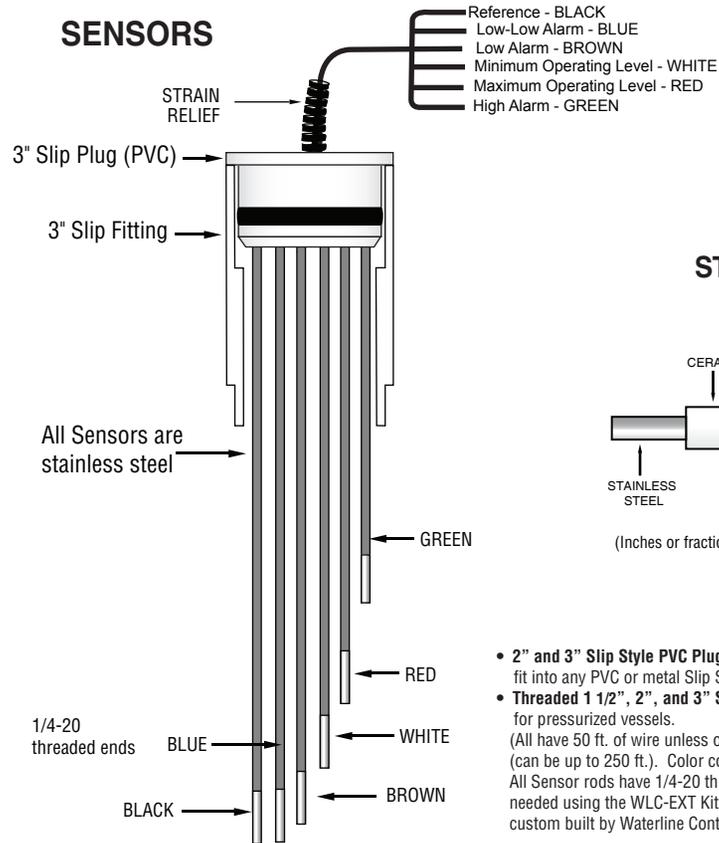
### RELAY OUTPUTS



24V AC or 24V DC  
Max @ 0.25A Max

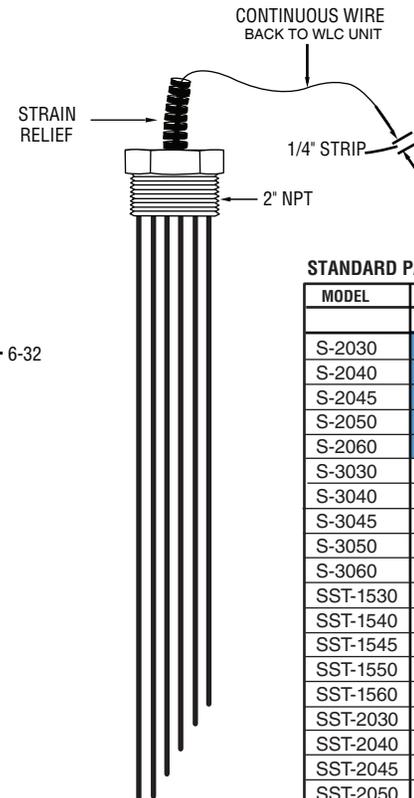
**Optional Accessories**

While the WLC NINA Series will work properly with any type of float switch (Tethered or Electro-mechanical) or a pressure switch that has a Normally Open dry contact. At Waterline Controls we want your installations to be as trouble free as possible. So for us that means no more float switches of any kind whenever that is possible and we do not offer them with any of our controls. We offer the WLC NINA Series separately so you can purchase floats of any type from your favorite Distributor and use them with WLC NINA Series. We offer three types of Solid state sensor assemblies, Spark plug type, PVC for non-pressurized environments and Stainless Steel Threaded plugs for pressurized environments and high temperatures. These solid rods will never foul or degrade due to water quality or any other reason. If you have a unique situation please call us today so we can help develop a sensor assembly for your environment.



- **2" and 3" Slip Style PVC Plugs** fit into any PVC or metal Slip Style Coupler.
- **Threaded 1 1/2", 2", and 3" Stainless steel Plugs** for pressurized vessels. (All have 50 ft. of wire unless otherwise specified (can be up to 250 ft.). Color codes are longest to shortest. All Sensor rods have 1/4-20 threads and can be extended as needed using the WLC-EXT Kit or they can be custom built by Waterline Controls.)

**STAINLESS STEEL NPT**



**STANDARD PART NUMBERS FOR SENSORS**

MODEL	PVC		STAINLESS STEEL			STANDARD LENGTH (in inches)					
	2"	3"	1 1/2"	2"	3"	Black	Blue	Brown	White	Red	Green
S-2030						17			17	15.5	
S-2040						17			17	15.5	10.375
S-2045						17		17	16.375	14.875	
S-2050						17		17	16.375	14.875	10.375
S-2060						17	17	16.375	15.5	14	10.375
S-3030						17			17	15.5	
S-3040						17			17	15.5	10.375
S-3045						17		17	16.375	14.875	
S-3050						17		17	16.375	14.875	10.375
S-3060						17	17	16.375	15.5	14	10.375
SST-1530						17			17	15.5	
SST-1540						17			17	15.5	10.375
SST-1545						17		17	16.375	14.875	
SST-1550						17		17	16.375	14.875	10.375
SST-1560						17	17	16.375	15.5	14	10.375
SST-2030						17			17	15.5	
SST-2040						17			17	15.5	10.375
SST-2045						17		17	16.375	14.875	
SST-2050						17		17	16.375	14.875	10.375
SST-2060						17	17	16.375	15.5	14	10.375
SST-3030						17			17	15.5	
SST-3040						17			17	15.5	10.375
SST-3045						17		17	16.375	14.875	
SST-3050						17		17	16.375	14.875	10.375
SST-3060						17	17	16.375	15.5	14	10.375