The NexSys™ control system is the latest in a long line of reliable, easy to use controllers from Lakewood Instruments. The NexSys™ control system uses the latest in microprocessor technology with a 5.7” Color Touch Screen interface for a high level of application flexibility.

All features, parameters, settings, and functional requirements to operate, program, and monitor the NexSys™ control system are accessible from the touch screen and DO NOT require the use of an external input, PC or device to operate or access. The NexSys™ control system even includes On-Board Help Screens with wiring, programming, and maintenance instructions.

The NexSys™ control system comes standard with the following system interfaces and DMX outputs: LON EIA 709 FTT10, BACnet IP, and MODbus TCP. The unit comes from the factory ready to integrate readings into a BAS, including: The state of any installed relay (On/Off), Water meter readings, Conductivity readings, Additional sensor readings (ph, ORP), sensor alarms, Additional 4-20mA input readings, Flow condition, and other digital inputs.

The NexSys™ control system comes standard with Ethernet capability through a browser (HTML5) interface that allows 100% access to all features and control parameters of the controller.
The NexSys™ control system has an astounding array of built-in features such as:

- LonWorks, MODbus, and BACnet communications interface
- Ethernet capability through an HTML interface
- The capability to send E-service reports to a subscribed service
- The ability to display operating values with time and date stamps on color coded graphs with zoom and scroll features
- Up to four boiler conductivity sensor inputs and two pH sensor inputs
- Trace chemistry capable with user definable correction factors as part of the programming
- Two water meter inputs with expansion capability to four
- Enclosure is NEMA 4X rated
- Two flow switch inputs configurable to any relay output with expansion capability to four
- Ability to add up to eight 4-20mA input readings
- Ability to add four digital inputs
- Ability to mount every sensor/input up to 400 meters away from the controller via 4-wire twisted pair
- Ability to control the blowdown of four boilers at the same time
- Six relay outputs expandable to ten relay outputs for user configurable operations such as:
  - Blowdown Valve Control by Sample/Cycle, Continuous Sample, and Sample Hold
  - Feed by Percent of Blowdown Time
  - Feed by Setpoint with Percent of Time Feature as Part of Spaced Feed
  - Trace Chemistry Control
  - By Makeup Totalized Gallons
  - By Blowdown Totalized Gallons
  - By Percent On-Time
  - By Scheduled Feed by Day and Time
  - As an Alarm Relay by User Selectable Alarms
- On-board Help Screens with wiring, programming, and maintenance instructions

**Specifications**

<table>
<thead>
<tr>
<th>Touch Screen Interface:</th>
<th>Relay ratings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.7” diagonal viewing area</td>
<td>120VAC 3A per relay 15A total</td>
</tr>
<tr>
<td>Display size: 115X86 mm</td>
<td>Enclosure: NEMA 4X</td>
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<tr>
<td>Pixel: 320X240</td>
<td></td>
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<tr>
<td>Color: TFT 65536</td>
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<tr>
<td>Backlight: LED or CCFL</td>
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<tr>
<td>Power: 120/240 VAC 50/60 Hz</td>
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</table>
# NexSys™ Boiler System Config

<table>
<thead>
<tr>
<th>Price</th>
<th>Type</th>
<th>1-4/ A</th>
<th>1-4/ A, B or XX</th>
<th>1-4/ A, B or XX</th>
<th>1-4 or X</th>
<th>1-4 or X, T, H or X, I, R or s, L or X</th>
<th>1-4 or X, T, H or X, I, R or s, L or X</th>
<th>1-4 or X, T, H or X, I, R or s, L or X</th>
<th>1-4 or X, T, H or X, I, R or s, L or X</th>
<th>1-4 or X, T, H or X, I, R or s, L or X</th>
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<th>1-4 or X, T, H or X, I, R or s, L or X</th>
<th>1-4 or X, T, H or X, I, R or s, L or X</th>
</tr>
</thead>
<tbody>
<tr>
<td>NXB</td>
<td>-</td>
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<td>-</td>
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</tbody>
</table>

- **Boiler Systems**
  - Boiler Probe Kit (1-4/ A = STD, B = HD) (Max 4 Cond sensors per system incl Condensate)
  - Sample Cycle Plumbing (1-4/ A = .50, B = .75)
  - Continuous Sample Plumbing (1-4/ A = .50, B = .75)
  - Motorized Ball Valve (1-4/ A = .50, B = .75)
  - Condensate Probe Kit (INCLUDES k, l, inline, 10 inch sensor) (Max 4 Cond sensors per system incl Boiler)
  - Condensate Cell Constant (T = 0.10 or H = 0.01)
  - Condensate Fitting (I = Insert or R = Retract)
  - Condensate Sensor Length (S = 10" or L = 18")
  - Relays (S = 6 or D = 10)
  - Water Meters Inputs (S = 2 D = 4)
  - 4-20MA Input (4 or 8)
  - 4-20MA Output (4 or 8)
  - 2nd Remote Display (S = 5.7" L = 15")
  - Custom Designator (XX)

**X = No Option Needed**

Pricing is for each. All items are code W except 2nd remote display which is a code D

**EXAMPLE:**

A system that would include 1 boiler using sample/cycle control with 1/2" plumbing and motorized ball valve, and 1 condensate system with conductivity between 10-100 uS using a 10" insertion sensor, would look like:

```
$6,497 - NXB 1A - 1A XX - 1A - 1 T I S - D S - X X - X - XX
```

- 1 Left Hand Boiler Probe Kit
- 1 Motorized Ball Valve
- 1 Condensate Probe Kit
- 1 Condensate Fitting
- 1 Condensate Sensor Length
- 1 Water Meters Inputs
- 1 4-20MA Input