

NexSys™

The Next Generation in
**Reliable
Controllers**

NexSys™ Boiler Control System



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

Touch Screen Interface:

5.7" diagonal viewing area
 Display size: 115X86 mm
 Pixel: 320X240
 Color: TFT 65536
 Backlight: LED or CCFL
 Power: 120/240 VAC 50/60 Hz

Relay ratings:

120VAC 3A per relay 15A total
 Enclosure: NEMA 4X

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	Price	Type	1-4 / A, B or XX	1-4 or X	T, H or X	I, R or X	S, L or X	S, D or X	S, D or X	4, 8 or X	4, 8 or X	S, L or X	XX				
NexSys™ Boiler System Config		NXB	-			-							-			-	
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.1, 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 10-100uS using a 10" insertion sensor, would look like:

NXB 1A - 1A XX - 1A - 1 T I S - D S - X X - X - XX