BoilerTEK

By KDS Controls

Advanced Burner Management & Combustion Control

Complete burner management and combustion control in an easy to operate system.

Improved Boiler Efficiency

Tighter control reduces energy costs.

PLC Based Control System

 Secure burner management logic control with independent control loop processing for combustion control in accordance with NFPA guidelines.

Color Touch screen Interface

- Setup, Tuning, and Fuel/Air Ratio adjustments available through password protected screens.
- Easy and fast operator adjustments with a complete view of all system information.
- Full color display of critical startup data including flame scanner status, purge, pilot, and fuel status.
- Historical trending replaces paper recorders.

First Out Annunciator

Allows easy determination of boiler trips.

Expansion and Networking

- Easily expandable to Plant Master, Boiler Master, Fuel, Forced Draft, O2 Trim, Drum Level and Furnace Draft.
- Jackshaft, Parallel, and Cross Limited Fully Metered Systems Available.
- Optional Ethernet module for LAN and Internet access.



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Are you tired of call-ins for minor problems at all hours of the day and night?

Do you wish you could check up on your plant at any time from your home or office?

BoilerTEK™ makes all these options available.

Wouldn't it be great if all your energy information like steam flow output and fuel consumed were just loaded into an Excel spreadsheet for your monthly reporting. With BoilerTEK you can consider it done.

Did we mention that BoilerTEK™ with an Oxygen Trim option can save you tons of money?

It is a generally accepted fact that oxygen trim can generate fuel savings of 5% to 7%.

By implementing the BoilerTEK™ precise Fuel/Air Ratio Control combined with Oxygen Trim Control you can expect an R.O.I. of less than 12 months and as little as 6.

There is no better way to justify a boiler combustion control system upgrade.

Our PLC is the fastest in the world with a staggering 100,000 steps per micro second, 56,000 rungs of ladder logic, and 8,192 tag capacity. And if that isn't enough it carrys a 3 YEAR WARRANTY.

It just doesn't get any better than this.

BoilerTEK™ was designed with 40 years of boiler control experience. We understand what information your boiler operator needs to safely and economically run and maintain your boiler.



Most PLC boiler systems are engineered for each specific boiler application which makes them engineering intensive, read expensive.

And its' features are limited to the design engineers experience. BoilerTEK™ is engineered for all applications by selecting the catalog items you require. And it is inexpensive because the engineering has already been done.

BoilerTEK™ delivers unmatched performance for the price. Won't you consider one for your boiler today?



Get a text message on your cell phone or a page whenever there is a problem in your plant you need to know about.



CATALOG ITEM DESCRIPTION:

BURNER MANAGEMENT SYSTEM FUEL:

- · NG-Select for natural gas fired boiler
- · 2F-Select for number two(2) oil fired boiler
- · 4F-Select for number four(4) oil fired boiler
- 6F-Select for number six(6) oil fired boiler

BURNERS:

• 1B, 2B, etc.-Select for number of burners per boiler

SCANNERS:

· 1S or 2S-Select the number of scanners required

OPTIONS:

- DS-Select if digital scanner with 4-20ma output is desired (Displays on analog meter)
- SS-Select if a monitored surge suppressor is desired (Failure displays on screen)

COMBUSTION CONTROL SYSTEM

- PM-Select if you require a controller to provide a demand signal to one or more boilers based on plant header pressure
- BM-Select if a signal is already being provided by an existing plant master
- JS-Select if air and fuel are operated through common linkage from a single actuator
- PL-Select if fuel and F.D. actuators operate independently from a common signal
- · CL-Select if fuel flow and air flow are metered
- TM-Select if Oxygen Trim is desired
- VM-Select if Oxygen Trim will be implemented through a variable speed drive to the fan motor
- L1-Select if one element is desired (requires drum level measurement)
- L2-Select if two element is desired (requires drum level and steam flow measurement)
- L3-Select if three element drum level is required (requires above metering plus feed flow)
- ID-Select if boiler is negative draft type (requires draft transmitter)

OPTIONAL CONTROL SYSTEMS

- LL-Select if automatic boiler sequencing based on load requirements is desired
- · Al-Select if additional analog inputs are desired
- IF-Select if an interface to an existing HVAC or other system is required
- RM-Select if remote pager or cell phone text messaging for alarms is required
- DA-Select if a Data Acquisition System is required

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The BoilerTEK system is the first to combine burner management and combustion control using a single PLC with a separate CPU for independent combustion control in accordance with NFPA guidelines. BoilerTEK eliminates expensive and time consuming installation and engineering by providing a packaged, pre-engineered system to meet your boiler control needs. Cost effective design allows practical application for small boilers at a less expensive price than comparable systems. This allows for quicker return on investment through reduced fuel consumption along with extending the life of your connected boiler. This combination ensures the highest reliability and safety available in a complete boiler control solution.

Standard Features:

- 10" touch screen interface.
- Dual fuel multiple burner control capable.
- · Uninterruptible fuel transfer.
- · First out annunciator.
- · Boiler trip history.
- · Alarm management and scrolling display.
- Proof of closure indication.
- Complete startup sequence logic display.

Optional Features

- · 6" or 12" touch screen interface.
- · Multiple scanner support.
- Flame intensity display.
- Available simplified Burner-Management-Only system.
- PC-Based SCADA/HMI with local and remote data storage.
- Ethernet LAN and Internet remote access.
- · Connectivity to OPC compatible data acquisition system.
- Energy monitoring with automatic spreadsheet populating.
- · Cellular text message and page alarm notification.



Specifications:

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Туре	Description		
System Input Voltage	100-130VAC, 50-60Hz		
Approximate Power Consumption	20A main breaker provided		
Operating Temperature	32 to 131 deg F		
	(0 to 55 deg C, inside enclosure)		
Relative Humidity	10 to 90%		
(non condensing)			
Cycle Time	100K steps ladder per millisecond Ladder CPU		
	50 milliseconds per PID loop		
PLC Memory	56K steps ladder program,		
	112K data register storage		
Operator Interface	6", 10", and 12" full color touch screen		
Surge Suppression	25 kA, Line-to-Neutral or Line-to-Ground		
	with alarm contact		
Enclosure	NEMA 4		
Terminal Blocks	600V, 1492CA1 terminals for field wiring		
Agency approvals*	UL 508		
	*Factory Mutual (with approved programmer)		



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