

Boiler Control & Monitoring System



The **Complete** Control System For Your **Boiler**

Ov1

Overview

- Overview parameter to monitor important parameters.
- Parameter shown is selectable.

WL

Water Level Control

- One, two & three element control.
- Four alarm output contact.
- Fail Close or Open configurable.

FD

Furnace Draft Control

- ID Damper feed forward control.
- 10 points curve enhance from positive bias control.
- Selectable Furnace Draft control.

BDV

Blowdown Valve

- Time Based Mode (On Off Timer).
- TDS based control.
- Combine time & TDS based control.

FFG

FF Gate Control

- 4 Fuel Gate control.
- Operate by direct steam pressure or PID output steam pressure.
- Water Level interlock with deadband.

BP

Boiler Pressure Control

- PID control & 10 points curve.
- Two alarm output contact.
- 2 sets of Auger Conv. speed control.
- FD Fan by pressure or PID output.

SHT

SuperHeater Steam Temp Control

- One element PID.
- Include 2 alarm setpoint and deadband.

Vv

Vent Valve Control

- Steam Flow control.
- Enhance Steam Flow & Steam Temperature control.

SB

Soot Blower Control

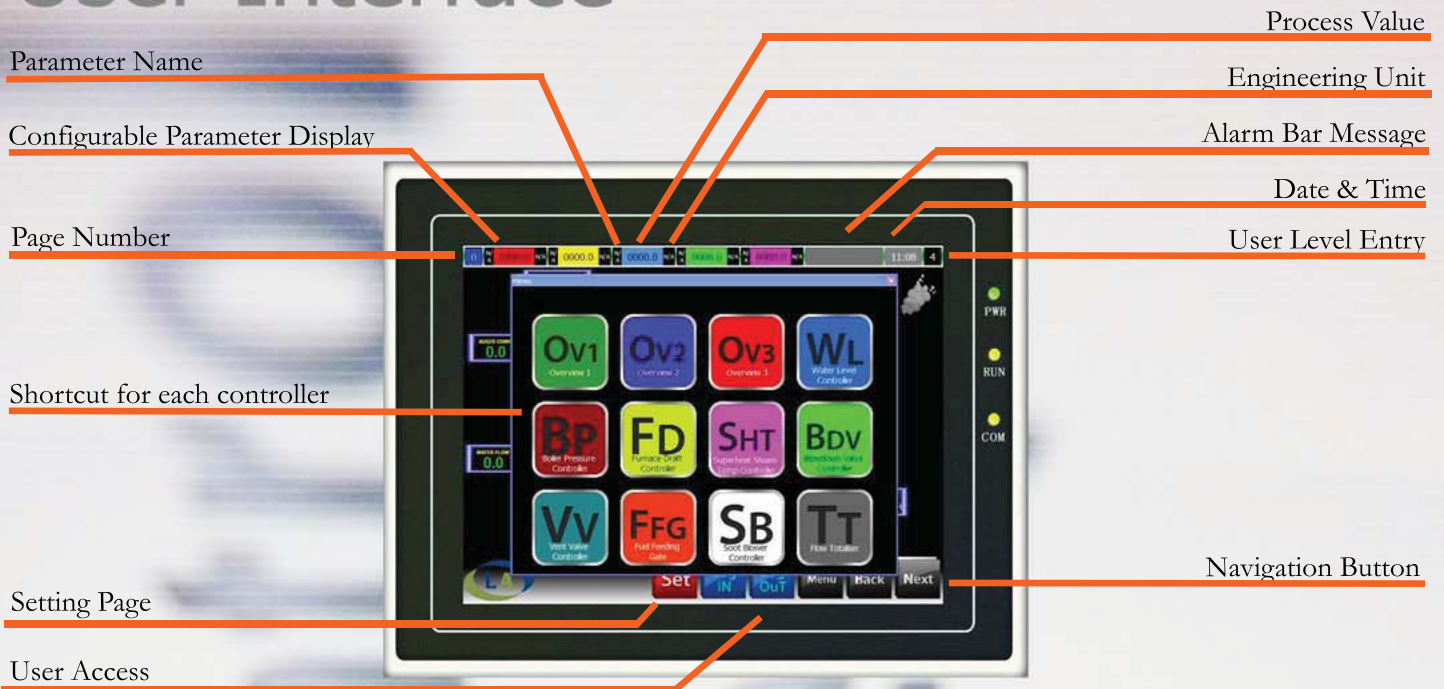
- 6 Soot Blower control per sequence.
- Settable interlocking with FD Fan and Fire Grate.

TT

Flow Totalizer

- Build in Steam Flow and Water Flow Totalizer function.
- Two totalizer per parameter.
- Up to 10 million tonne and resettable.

User Interface



Features

1. Selectable Input & Output for hardware utilities.
2. Calibration function & scalable engineering process.
3. Alarm output contact with alarm setpoint and deadband.

Digital Input Setting									
Control Value	Auto/Man	+	-	Shutdown Valve A/P	IB	IB1 Page 10 Buttons	IB	IB1 Page 10 Buttons	IB
Fuel Feeder Speed 1	0	0	0	IB1 Motor A/P	IB	IB1 Page 10 Buttons	IB	IB1 Page 10 Buttons	IB
Fuel Feeder Speed 2	0	0	0	IB1 Motor B/P	IB	IB1 Page 10 Buttons	IB	IB1 Page 10 Buttons	IB
FD Damper	0	0	0	IB1 Motor C/P	IB	IB1 Page 10 Buttons	IB	IB1 Page 10 Buttons	IB
SD Damper	0	0	0	IB1 Motor D/P	IB	IB1 Page 10 Buttons	IB	IB1 Page 10 Buttons	IB
Desuperheater	0	0	0	IB1 Motor E/P	IB	IB1 Page 10 Buttons	IB	IB1 Page 10 Buttons	IB

Analog Input Setting									
Steam Pressure	Water Flow In	Water Level In	Water Flow In	Water Temp In	Water Temp In	Water Temp In	Water Temp In	Water Temp In	Water Temp In
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit
AI	AI	AI	AI	AI	AI	AI	AI	AI	AI
High	High	High	High	High	High	High	High	High	High
Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
AI	AI	AI	AI	AI	AI	AI	AI	AI	AI
High	High	High	High	High	High	High	High	High	High
Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
AI	AI	AI	AI	AI	AI	AI	AI	AI	AI
High	High	High	High	High	High	High	High	High	High
Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
AI	AI	AI	AI	AI	AI	AI	AI	AI	AI
High	High	High	High	High	High	High	High	High	High
Low	Low	Low	Low	Low	Low	Low	Low	Low	Low

Alarm Setting			
Alarm 1 Set Value (bar)	999.9	Alarm 2 Set Value (bar)	999.9
Alarm 1 Deadband (bar)	999.9	Alarm 2 Deadband (bar)	999.9
Alarm 1 Action, 0=Active low, 1=Active High	9	Alarm 2 Action, 0=Active low, 1=Active High	9

4. Reversible process output for Fail Open or Close.
5. Complete package controller.
6. Fast switching between auto & manual mode for all controllers.

Analog Output Setting									
Control Value	Fuel Feeder Speed 1	Fuel Feeder Speed 2	FD Damper	SD Damper	Desuperheater	Control Value	Fuel Feeder Speed 1	Fuel Feeder Speed 2	FD Damper
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit	Eng Unit
AO	AO	AO	AO	AO	AO	AO	AO	AO	AO
Out Span	Out Span	Out Span	Out Span	Out Span	Out Span	Out Span	Out Span	Out Span	Out Span
Out Zero	Out Zero	Out Zero	Out Zero	Out Zero	Out Zero	Out Zero	Out Zero	Out Zero	Out Zero
Forward Reversal	Forward Reversal	Forward Reversal	Forward Reversal	Forward Reversal	Forward Reversal	Forward Reversal	Forward Reversal	Forward Reversal	Forward Reversal
Mode	Mode	Mode	Mode	Mode	Mode	Mode	Mode	Mode	Mode

Controller Enable									
Water Level Controller	✓	Shutdown Valve Controller	✗	Water Level Controller	✓	Shutdown Valve Controller	✗	Water Level Controller	✓
Boiler Pressure Controller - Fuel Feeder 1	✓	Water Valve Controller	✗	Boiler Pressure Controller - Fuel Feeder 1	✓	Water Valve Controller	✗	Boiler Pressure Controller - Fuel Feeder 1	✓
Boiler Pressure Controller - Fuel Feeder 2	✓	Fuel Feeding Gate Controller	✓	Boiler Pressure Controller - Fuel Feeder 2	✓	Fuel Feeding Gate Controller	✓	Boiler Pressure Controller - Fuel Feeder 2	✓
Boiler Pressure Controller - FD Damper	✓	Boiler Blower Controller	✓	Boiler Pressure Controller - FD Damper	✓	Boiler Blower Controller	✓	Boiler Pressure Controller - FD Damper	✓
Furnace Draft Controller	✗	Steam Flow Totalizer	✓	Furnace Draft Controller	✗	Steam Flow Totalizer	✓	Furnace Draft Controller	✗
Desuperheater Controller	✗	Water Flow Totalizer	✓	Desuperheater Controller	✗	Water Flow Totalizer	✓	Desuperheater Controller	✗

